

CONS. QUEBEC SMELTING & REFINING LTD. (no personal liability)

ANNUAL REPORT 1967

(no personal liability)

HEAD OFFICE

Suite 400, 621 Craig Street West, Montreal 3, Quebec

TRANSFER AGENTS AND REGISTRARS

Canada Permanent Trust Company, 600 Dorchester Blvd. West, Montreal 2, Quebec

1901 Yonge St., Toronto 1, Ontario

BANKERS

Canadian Imperial Bank of Commerce, 265 St. James Street West, Montreal 1, Quebec

AUDITORS

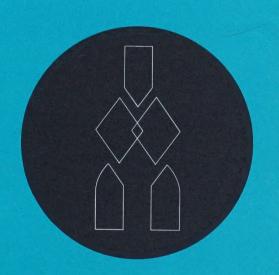
Price Waterhouse & Co.

SHARES LISTED

Canadian Stock Exchange — Montreal, Quebec

ANNUAL REPORT 1967

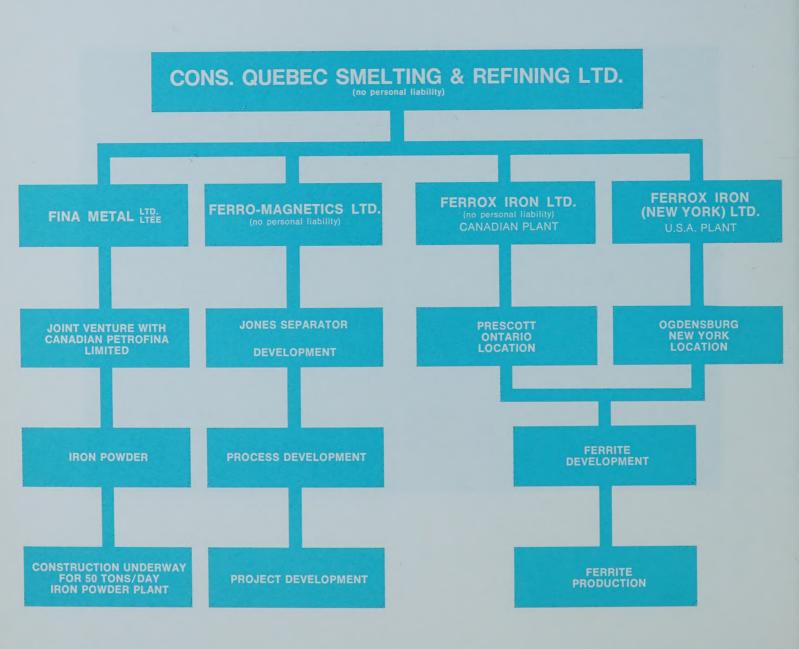
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Directors, Officers inside back co	ver



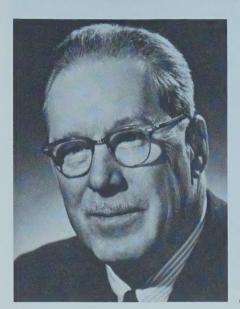
The Special and Annual General Meeting of Shareholders will be held in the Salon Richelieu, Queen Elizabeth Hotel, 900 Dorchester Blvd., West, Montreal, Quebec on April 30th, 1968, at 11:00 o'clock in the forenoon (Eastern Daylight Saving Time).

(no personal liability)

"GROWTH THROUGH PLANNED DEVELOPMENT"



(no personal liability)



TO THE SHAREHOLDERS OF CONS. QUEBEC SMELTING & REFINING LTD.:

R. P. Mills

In recent years your company has been concerned with the opportunities inherent in developing new techniques for the manufacture of high quality, low cost materials for the world's industries. Extensive basic research has been conducted into high intensity magnetic separation of ores and industrial compounds, with significant success. All of these processes involve the use of the Jones Wet Magnetic Separator.

As outlined later in this report ferrite powders produced by Ferrox Iron Ltd., have been designed to fill needs for magnetic devices in industry today. The Fina Metal Ltd. iron powder plant should be in commercial production by late December, with a capacity of 50 tons daily. Having developed the process for these two companies, Ferro-Magnetics Ltd., is now working on new projects in other areas.

The future business for Cons. Quebec Smelting & Refining Ltd. lies in manufacturing and industrial areas. Your directors have planned this development and recommend changing the name of the company to MAGNETICS INTERNATIONAL LTD. This will reflect the correct nature of the company's present and potential business.

You will be asked at the Special and Annual General Meeting of Shareholders to approve Special By-law "K" changing the name of the company to MAGNETICS INTERNATIONAL LTD. The mining properties held by your company will be transferred to a new company, CON QUEST EXPLORATION LTD. If a

suitable plan can be evolved and the approval of the Quebec Securities Commission obtained, the shares received will be distributed to Cons. Quebec Smelting & Refining Ltd. shareholders. During 1967 geophysical surveys and some diamond drilling was carried out in order to maintain the titles of these properties.

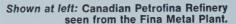
You will also be asked to approve By-law No. 47 increasing the number of Directors of the company from five to eight. The increase in size of the Board will provide representation for financial interests who have a substantial investment in the company. Copies of Special By-law "K" and By-law 47 are enclosed with this report for your information.

FINANCIAL

Current assets as at December 31, 1967, were \$682,420 and current liabilities \$106,590,leaving net working capital of \$575,830, of which \$441,000 will be required as equity capital for Fina Metal Ltd. A stand-by loan of \$250,000 has been arranged and can be drawn down as required.

Funds received during the year totalled \$1,215,601, of which \$850,000 was obtained from the sale of 7% Convertible Debentures, \$80,000 from the exercise of options on capital stock, \$150,780 from Government of Canada Research and Production grants, \$51,229 from ferrite sales and \$7,508 net revenue from the Jones Wet Magnetic Separator. Major expenditures were plant additions of \$205,106, development and pre-production \$311,846 and administrative expenditures including interest

(Letter to Shareholders continued)



Shown at right: Aerial view of the Ferrox Iron (New York) Ltd. Building and site at Odgensburg, N.Y.

charges of \$103,078. For details see the Statement of Source and Application of Funds.

FERROX IRON LTD.

The doubling of the capacity of the Prescott, Ontario plant, scheduled for July, was not obtained until March. This was due to the additional research and process development required to perfect production facilities for strontium ferrites for permanent magnets, soft ferrites for TV yokes and transformers. Pilot plant facilities were installed to produce ferrites for imbedding in plastics.

Ferrox Iron is now capable of producing a wide range of products to meet world-wide requirements for many types of ferrite. During the year, the raw material and iron oxide plant were expanded and can now provide the required feed stock for Ferrox Iron (New York) Ltd.

Despite a reduction of ferrite consumption during the last half of 1967 due to lower sales of color TV sets and appliances, Ferrox Iron established markets in Italy, Germany, Australia and Great Britain. These markets are now expanding rapidly.

Ferrox has begun to enter the United States market. Since the Company can offer a complete range of quality ferrite powders at competitive prices, establishment of the U.S. market will result in the volume of sales necessary for full capacity operations.

Although growth this year was slower than anticipated, your company is becoming firmly entrenched as a supplier to two of the fastest



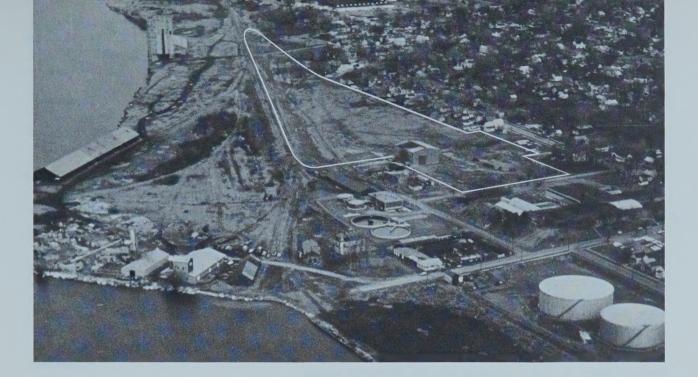
growing industries, which use iron powder for pressed parts and ferrite powders for magnets. The company can anticipate a rapid growth of sales over the next two or three years. The use of ferrite magnets in small accessory motors for automobiles and cordless appliances is rising, and we are in a position to take full advantage of this growth potential.

FERROX IRON (NEW YORK) LTD.

Your company intends to set up ferrite production facilities as planned through its subsidiary, Ferrox Iron (New York) Ltd. at Ogdensburg, New York. There have been delays in processing the loans totalling \$810,000 from U.S. Government authorities, granted in April, 1967. Most of the requirements have now been met. Alternate plans for financing have been considered in case there are further delays. In view of the expansion of the Prescott plant and the improvement in processing facilities, capital requirements for Ferrox Iron (New York) may be substantially reduced.

FERRO-MAGNETICS LTD.

Ferro-Magnetics Ltd. has a number of test programs underway for separation of both metallic and industrial minerals, using the Jones Wet Magnetic Separator. Due to resurgance in the uranium industry some test programs started several years ago are being revived. A major program to upgrade the quality of talc ore for Baker Talc Limited is underway, and a number of other projects on iron ores and industrial minerals are being evaluated.



The sale of Jones Wet Magnetic Separators has not been actively persued due to the priorities of iron powder and ferrite research. Now that these have been completed, sales and test programs by Ferro-Magnetics will be accelerated.

FINA METAL LTD.

Construction of the iron powder plant in Montreal East is proceeding on schedule. The first furnace should be ready to start up at the end of September, followed by a second late in October. This will allow two months for the testing and adjustment of equipment before commercial production begins at the end of the year. The plant will have a capacity of 50 tons of molding grade iron powder daily. When operating at capacity, it will be capable of achieving gross sales of \$3,000,000 per year.

Fina Metal is a joint venture with Canadian Petrofina Ltd. holding 51%, and your company holding 49% of the 1,100,000 shares of capital stock. Cons. Quebec Smelting is providing \$539,000 of equity capital, Canadian Petrofina \$561,000, and the balance of \$3,000,000 has been financed through a bank loan at 7¼% repayable over a period of seven years.

The plant adjoins the Canadian Petrofina refinery, which will supply the hydrogen gas for the reduction process. The building has been completed, a railway siding has been constructed, and equipment is being installed. Operation of the test plant at Prescott will continue to supply iron powder samples to consumers.

ANNUAL MEETING

Your Directors submit for your consideration the Consolidated Balance Sheet as at December 31, 1967, and the related financial statements, including the Statement of Source and Application of Funds.

Enclosed is the Notice of the Special and Annual General Meeting of Shareholders to be held at the Queen Elizabeth Hotel, Montreal, Quebec, on the 30th day of April, 1968. Your Directors hope you will attend, but if you cannot attend in person, a Proxy form is enclosed with the report for your use.

Your Directors wish to express their appreciation to W. J. D. Stone, Managing Director of Ferrox Iron Ltd., Ferro-Magnetics Ltd. and Ferrox Iron (New York) Ltd., to Dr. J. H. Morgan, your Vice-President and General Manager, for their efforts in carrying through your projects. Our thanks also go to John D. Nye, Manager of the Ferrox plant at Prescott, assisted by R. E. D. Stanley and F. E. Noccey, to D. S. Hay, Project Manager of Fina Metal Ltd. and to the entire staff for their loyal services throughout the year.

Respectfully submitted on behalf of the Board of Directors.

Montreal, Quebec. April 3, 1968.

R. P. Mills, President.

CONS. QUEBEC SMELTING & REFINING LTD. (no personal liability) (Incorporated under The Quebec Mining Companies Act on November 26, 1947) AND SUBSIDIARY COMPANIES (NOTE 1)

CONSOLIDATED BALANCE SHEET — DECEMBER 31,	19	67	STATEMENT I
ASSETS			
CURRENT ASSETS: Cash on hand and in bank Bank deposit receipt due January 10, 1968 Accounts receivable Taxes recoverable Investments in shares of listed mining companies (Note 2 and Schedule A—quoted market value—\$47,045.00) Inventory — raw materials, at cost, and finished goods,		53,429.10 400,000.00 50,401.99 5,498.22 30,981.08	
at net realizable values which are lower than cost	-	142,109.94	\$ 682,420.33
INVESTMENTS IN SHARES OF UNLISTED MINING COMPANIES (Note 2 and Schedule B)			18,975.00
INVESTMENT IN AND ADVANCES TO FERROX IRON (NEW YORK) LTD., A SUBSIDIARY COMPANY (Note 1) INVESTMENT (49%) IN FINA METAL LTD. (Notes 3 and 12) ADVANCES TO RELATED COMPANIES		34,528.07 116,865.30 21,800.00	173,193.37
MORTGAGE RECEIVABLE, LESS INSTALMENTS DUE WITHIN ONE YEAR			21,478.35
MINING CLAIMS UNDER DEVELOPMENT LICENCES OR MINING LICENCES (Notes 2 and 4 and Schedule C)		36,024.04	
OPTION ON MINING RIGHTS, AT COST, PORTLAND WEST TOWNSHIP PHOSPHATE PROPERTIES (Notes 4 and 5)	_	46,591.87	82,615.91
FIXED ASSETS, AT COST: Land Building Machinery and equipment Furniture and fixtures		3,229.85 99,573.84 362,715.53 4,529.87 470,049.09	
Less: Received by grant on building, machinery and equipment (Note 7)	_	148,750.60 321,298.49	
Less: Accumulated depreciation (Note 8)	_	3,759.48	317,539.01
INVESTMENT IN JONES WET MAGNETIC SEPARATOR			6,222.07
DEFERRED EXPENDITURES: Development (Statement II) Administrative (Statement IV)	-	949,109.96 287,631.67 1,236,741.63	
Less: Received by grant (Note 7)		385,549.40	851,192.23
ORGANIZATION EXPENSES			\$ 8,708.55 2,162,344.82

(no personal liability) (incorporated under The Quebec Mining Companies Act on November 26, 1947) AND SUBSIDIARY COMPANIES (NOTE 1)

LIABILITIES AND CAPITAL

CURRENT LIABILITIES: Accounts payable and accrued liabilities Debenture interest payable		\$ 84,665.75 21,924.58	\$ 106,590.33
7% MORTGAGE PAYABLE, less \$4,500 payable within one year			28,125.00
7% CONVERTIBLE REDEEMABLE DEBENTUR due February 1, 1972 (Note 6): Authorized Issued Less: Converted into capital stock in 1967		\$ 1,000,000.00 1,000,000.00 237,300.00	762,700.00
CAPITAL: Capital stock (Note 9): Authorized-2,500,000 shares of \$5 par value Issued and fully paid:		\$12,500,000.00	702,700.00
For cash (Note 10) Shares 990,200	(Discount) \$(3,548,742.55)	Net \$ 1,402,257.45	
For net assets of predecessor corporation 300,000	(750,000.00)	750,000.00	
For debentures converted (Note 6) 237,300	(949,200.00)	237,300.00	
1,527,500 ———————————————————————————————————	\$(5,247,942.55)	2,389,557.45	
Deduct: Cost of mining claims and options abandoned, write-offs and net losses (profits) on disposal of investments and other assets (Statement V)	\$ 1,114,896.57		
Deficit of Ferro-Magnetics Ltd. (No Personal Liability), a subsidiary company (Statement VI)	9,731.39	1,124,627.96	1,264,929.49

SIGNED ON BEHALF OF THE BOARD:

R. P. Mills, Director

J.O. Sabourin, Director

\$2,162,344.82

AUDITORS' REPORT

To the Shareholders of CONS. QUEBEC SMELTING & REFINING LTD. (no personal liability)

We have examined the consolidated balance sheet of Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) and its consolidated subsidiary companies as at December 31, 1967, and the related statements (Statements II to VI inclusive) for the year then ended, and have obtained all the information and explanations we have required. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion and according to the best of our information and the explanations given to us and as shown by the books of the companies, these financial statements are properly drawn up so as to exhibit a true and correct view of the combined state of affairs of the companies as at December 31, 1967 and of their operations for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

March 6, 1968.

PRICE WATERHOUSE & CO. Chartered Accountants.

S. QUEBEC SMELTING & REFININ

(no personal liability)

AND SUBSIDIARY COMPANIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS, DECEMBER 31, 1967

NOTE 1: (a) The consolidated financial statements include the accounts as at December 31, 1967 of the following subsidiary companies:

Ferrox Iron Ltd. (No Personal Liability) incorporated under The Quebec Mining Companies Act on January 29, 1964.

Ferro-Magnetics Ltd. (No Personal Liability) — incorporated under The Quebec Mining Companies Act on December 22, 1964.

(b) The accounts as at December 31, 1967 of Ferrox Iron (New York) Ltd., a wholly owned subsidiary incorporated under the laws of the State of New York on October 15, 1965, are not consolidated because the company has not commenced operations and no audited accounts are available at December 31, 1967. Investment in and advances to Ferrox Iron (New York) Ltd. as at December 31, 1967 comprise:

Capital stock - 500 shares at cost 540.50 33,987.57 Advances \$34,528.07

The company is negotiating with U.S. interests to provide loans to Ferrox Iron (New York) Ltd. aggregating approximately \$810,000 at annual rates of interest varying from 234% to 6% and the issue by the company of \$130,000 convertible debentures.

NOTE 2: The investments in shares of mining companies and mining rights are valued at cost, except in the case of unlisted mining shares and shares and mining rights acquired from Quebec Smelting and Refining Corporation in 1949 and where shares were received in consideration of sales of mining rights, which are at valuations determined by the directors of the company.

NOTE 3: The company's investment in Fina Metal Ltd. is 539,000 shares of which 490,000 shares are subject to call to the extent of 90% thereof or \$441,000.

NOTE 4: The amount at which the mining claims and rights are recorded does not, and does not purport to, represent their present or future value.

NOTE 5: The mining rights under option may be acquired by the issue to the vendors of 75,000 shares of a company having an authorized capital of 3,000,000 shares, if such is formed to acquire and develop them.

NOTE 6: Pursuant to a resolution of the Board of Directors on March 3, 1967 the provision made on February 10, 1966 for the issue of \$500,000 7% Convertible Redeemable Debentures was increased to an aggregate principal amount of \$1,000,000.

The debentures are redeemable at any time after February 1, 1968, and mature on February 1, 1972. They constitute a first floating charge to and in favour of the Trustee on the undertaking of the company, its property and assets. The debentures are convertible at the option of the holder into fully paid and non-assessable common shares of the company at the following rates for each \$100 principal amount:

- 1. On or before February 1, 1969 - 100 Common shares

- 2. February 2, 1969 to February 1, 1970 66% Common shares 3. February 2, 1970 to February 1, 1971 50 Common shares 4. February 2, 1971 to January 31, 1972 40 Common shares

During the year \$850,000 of debentures were issued for \$850,000 cash and \$237,300 were converted into capital

NOTE 7: The company has been awarded Government of Canada research and production grants of \$630,600 for the period ending May 1969. Funds provided to December 31, 1967 total \$534,300.00 whereof \$148,750.60 is for building, machinery and equipment and \$385,549.40 for development and administrative expenditures.

NOTE 8: No depreciation has been recorded on the fixed assets of Ferrox Iron Ltd. (No Personal Liability), a subsidiary, because it had not commenced commercial operations during the year.

NOTE 9: By resolution of the Board of Directors dated May 5, 1966, options were granted to officers and senior personnel of the company to purchase 100,000 unissued shares of capital stock at \$1 per share. Subject to qualification of the company under the applicable statutes, the options are exercisable at any time until December 31, 1971, on the condition that not more than 20% will be taken up in any one year.

NOTE 10: Options granted under an agreement dated April 20, 1967, amended April 28, 1967, to purchase 100,000 shares of the company's capital stock at 80 cents per share were exercised during the year.

NOTE 11: On September 15, 1967, Merrill Island Mining Corporation, Ltd. (a related company) granted the company a stand-by loan of \$250,000 for a period of 6 months from that date, in consideration of a fee of 1/4 of 1% of the loan.

NOTE 12: The company has guaranteed the repayment of a \$3,000,000 loan to Fina Metal Ltd. The company has also guaranteed a \$130,000 loan to Baker Talc Limited (No Personal Liability) (a related company) which is only repayable by Baker Talc if the product or process resulting from the specific development project covered by the loan is sold or put into commercial use.

(no personal liability)

AND SUBSIDIARY COMPANIES

DEVELOPMENT EXPENDITURES

Depreciation of buildings and

equipment — unallocated

subsidiary company (Statement III)

Per balance sheet (Statement I)

Pre-production and research expenditures — Ferrox Iron Ltd. (No Personal Liability), a

STATEMENT II

FROM DATE OF INCORPORATION (NOVEMBER 26, 1947) TO DECEMBER 31, 1967

Balance at December 31, 1966	Expenditures for the year ended December 31, 1967	Balance at December 31, 1967
\$ 9,549.09 34,507.16 43,092.91 296,360.64 19,112.93 11,193.97 5,639.73 55,237.37 9,575.41 11,601.17 4,268.90 10,011.35 166,815.69 28,991.69 50,865.05 37,268.71 1,714.44 11,918.41	\$ 1,100.25 186.41 113.16 4,296.73 9,000.00 ————————————————————————————————	\$ 10,649.34 34,693.57 43,206.07 300,657.37 28,112.93 11,193.97 5,639.73 55,739.37 9,753.06 11,637.79 4,268.90 10,058.29 166,913.19 29,000.28 52,995.74 37,627.13 1,716.20 11,988.10 1.66
807,724.62	18,128.07	825,852.69
(395,762.75)	— 18,128.07	(395,762.75)
341,489.13	177,530.89	519,020.02
\$ 753,451.00	\$ 195,658.96	\$ 949,109.96
Balance at December 31, 1966 \$ 97,023.09 182,309.60 2,500.00 121,689.45 3,997.57 407,519.71	Expenditures for the year ended December 31, 1967 \$ 6,361.84 11,509.78	Balance at December 31, 1967 \$ 103,384.93
	\$ 9,549.09 34,507.16 43,092.91 296,360.64 19,112.93 11,193.97 5,639.73 55,237.37 9,575.41 11,601.17 4,268.90 10,011.35 166,815.69 28,991.69 50,865.05 37,268.71 1,714.44 11,918.41 — 807,724.62 (395,762.75) 411,961.87 \$ 97,023.09 182,309.60 2,500.00 121,689.45	Balance at December 31, 1966 13,002.5 1,100.25 34,507.16 186.41 43,092.91 113.16 296,360.64 4,296.73 19,112.93 9,000.00 11,193.97 — 5,639.73 — 55,237.37 502.00 9,575.41 177.65 11,601.17 36.62 4,268.90 — 10,011.35 46.94 166,815.69 97.50 28,991.69 8.59 50,865.05 2,130.69 37,268.71 358.42 1,714.44 1.76 11,918.41 69.69 36.60 807,724.62 18,128.07 (395,762.75) — 1.66 807,724.62 18,128.07 (395,762.75) — 1.66 807,724.62 18,128.07 (395,762.75) — 1.66 19,000 121,689.45 3,997.57 10.00 133.29 3,997.57 10.00

4,442.16

411,961.87

341,489.13

\$ 753,451.00

4,555.32

430,089.94

519,020.02

\$ 949,109.96

113.16 18,128.07

177,530.89

\$ 195,658.96

(no personal liability)

AND SUBSIDIARY COMPANIES

PRE-PRODUCTION AND RESEARCH EXPENDITURES OF FERROX IRON LTD.

(no	personal	liability)	Α	SUBSIDIARY	COMPANY
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(no personal liability) A SUBSIDIARY COMPANY FROM DATE OF INCORPORATION (JANUARY 29, 1964)	TO DECEMBER 31.	1967	STATEMENT III
THOM BATE OF MOOTH OFFICER (CARONIC 25, 155.)	Balance at	Expenditures for the year ended	Balance at
	December 31, 1966	December 31, 1967	December 31, 1967
PRE-PRODUCTION:	A 47.040.04		47.040.04
Incurred by prior interests	\$ 47,318.91	—	\$ 47,318.91
Miscellaneous	6,220.42	\$ 6,834.58	13,055.00
Rent	2,764.00 987.20	5,975.00	8,739.00
Rental of equipment	55,186.06	52,383.13	987.20 107,569.19
Salaries	55,166.06	61,055.34	61,055.34
Materials	6,648.51	1,923.27	8,571.78
Supplies	2,198.05	1,923.27	2,389.27
Technical publications	3,006.12	8,874.38	11,880.50
Testing and consulting fees Transportation	244.33	18.74	263.07
	16,124.13	4,224.64	20,348.77
Travelling	10,124.13	5,237.58	5,237.58
Inventories, December 31, 1966		7,352.87	7,352.87
inventories, December 31, 1900		7,002.07	
	140,697.73	154,070.75	294,768.48
RESEARCH: Insurance Light, heat and power Materials and supplies Miscellaneous Rental of equipment Salaries and wages Taxes, fees and licences Testing and consultation Transportation Travelling Workmen's compensation insurance	2,566.47 15,605.39 77,094.09 4,634.80 3,991.18 213,081.11 7,023.42 3,732.23 10,811.72 7,425.29 4,229.56 350,195.26 490,892.99	442.12 13,419.54 58,570.72 4,226.12 8,993.73 174,642.85 4,416.44 (4,262.45) 9,142.57 8,230.83 2,622.71 280,445.18	3,008.59 29,024.93 135,664.81 8,860.92 12,984.91 387,723.96 11,439.86 (530.22) 19,954.29 15,656.12 6,852.27 630,640.44
LESS: Inventories, December 31, 1967	_	140,797.54	140,797.54
excess of net assets of the subsidiary over cost of acquisition	10,010.00	(10,000.00)	10.00
Revenue from sales of super concentrates and ferrites Expenditure applied to and recovered or	41,138.11	51,229.60	92,367.71
recoverable from Fina Metal Ltd	88,255.75	74,957.90	163,213.65
Expenditures recovered from related company	10,000.00		10,000.00
	149,403.86	256,985.04	406,388.90
Per Statement II	\$ 341,489.13	\$ 177,530.89	\$ 519,020.02

(no personal liability)

AND SUBSIDIARY COMPANIES

ADMINISTRATIVE EXPENDITURES

FROM DATES OF INCORPORATION TO DECEMBER 31, 1967

STATEMENT IV

		Balance at December 31, 1966	xpenditures for the year ended December 31, 1967	Balance at December 31, 1967
Advertising	\$	4,689.07	\$ 328.40	\$ 5,017.47
Consulting fees		227.00	_	227.00
Cost of share certificates		3,852.95	1,430.51	5,283.46
Depreciation of office furniture		7,488.16		7,488.16
Hospital and pension plans		5,076.81	5,566.79	10,643.60
Interest		12,797.11	36,671.53	49,468.64
Legal and audit fees Listing and stock exchange fees		25,748.61 4,081.62	8,794.90 135.02	34,543.51 4,216.64
Management services — geological,		7,001.02	133.02	4,210.04
engineering and administrative		99,100.00	15,000.00	114,100.00
Miscellaneous and office expenses		14,889.41	2,217.83	17,107.24
Office rent		9,906.21	2,355.00	12,261.21
Office salaries		51,919.19	_	51,919.19
Printing and maps		11,069.50	26.88	11,096.38
Publicity and shareholders information		16,917.73	6,514.64	23,432.37
Securities registration fees and expenses		3,635.34	18,476.60	22,111.94
Office supplies and reproduction		9,071.94	2,680.73 511.87	11,752.67
Taxes, fees and licences		4,741.24 6,574.99	210.73	5,253.11 6,785.72
Transfer agents' fees		33,777.92	4,428.12	38,206.04
Travelling		4,758.85	910.83	5,669.68
Workmen's compensation insurance		1,773.97		1,773.97
Directors' fees and salaries of officers				.,
who are also directors			12,250.00	12,250.00
Interest and dividends received		(7,941.96)	(15,431.73)	 (23,373.69)
	_	324,155.66	 103,078.65	427,234.31
LESS:				
Cost applicable to mining claims abandoned Excess of revenue over expenditure from		93,525.11	_	93,525.11
Jones Wet Magnetic Separator operations		38,568.75	7,508.78	46,077.53
		132,093.86	7,508.78	139,602.64
Per balance sheet — Statement I	\$	192,061.80	\$ 95,569.87	\$ 287,631.67
	=		 	

STATEMENT OF COST OF MINING CLAIMS AND OPTIONS ABANDONED, WRITE-OFFS AND NET LOSSES (PROFITS) ON DISPOSALS OF INVESTMENTS AND OTHER ASSETS STATEMENT V

DECEMBER 31, 1967

		From incorporation to December 31, 1966	-	For the year ended December 31, 1967		From incorporation to December 31, 1967
Net loss (profit) on disposal of investments in shares of mining companies	\$	259,707.69 90,511.54 (16,031.04)	\$	(10,327.85) 25,465.00	\$	249,379.84 115,976.54 (16,031.04)
Mining claims Development expenditures Administrative expenditures		276,283.37 395,762.75 93,525.11				276,283.37 395,762.75 93,525.11
Per balance sheet — Statement I	\$1	,099,759.42	\$	15,137.15	\$-	1,114,896.57

(no personal liability)

AND SUBSIDIARY COMPANIES

STATEMENT OF INCOME AND DEFICIT OF FERRO-MAGNETICS LTD.

(no personal liability) A SUBSIDIARY COMPANY

FOR THE YEAR ENDED DECEMBER 31, 1967

STATEMENT VI

	es		\$ 1,950.00 1,974.73
			(24.73)
Net revenu	e from custom and analysis work		6,332.55
			6,307.82
EXPENSES	3:		0,001.15_
	· 	\$ 1,556.07	
Bad debts		9,720.00	
	orinting and stationery	263.10	
	ce charges	6,000.00 150.12	
	audit fees	500.00	
	ous office expenses	472.85	
	ries	8,442.70	
		148.75	
	d maintenance	350.57 49.92	
	and licencesand telegrams	627.68	
	expenses	2,521.07	
Recovery	of commissions and taxes	(4,179.35)	26,623.48
_	for the year		(20,315.66)
	ecember 31, 1966		10,584.27
	cit, December 31, 1967 (Statement I)		\$ 9,731.39
Don	or, bootinsor or, roor (oracomoner)		
INVEST	MENTS IN SHARES OF LISTED MINING COMI	DANIES	0011501115
DECEMBER		ANILO	SCHEDULE A
	01, 1307		
Number of shares		Book value	Market value
40,000	Baker Talc	\$15,216.64	\$ 9,800.00
13,000 21,800	Chib-Kayrand Copper Mines Merrill Island Mining	2,334.90 13,429.54	1,885.00 35,360.00
21,000	Per balance sheet — Statement I	\$30,981.08	\$47,045.00
	Ter balance sheet — Glatement 1		φ47,043.00
INIVECTA	MENTS IN SHARES OF UNLISTED MINING CO	OMDANIES	
		DIVIPAINIES	SCHEDULE B
DECEMBER	31, 1967		Book value
270,000	Chiboug Copper Corporation (pooled)		\$ 5,400.00
129,200 562	Cuvier Mines		2,584.00
24,188	Gibson Mines (pooled)		250.00
75,000	Grand Manitou Mines (pooled)		7.440.00
357,029 256,669	Lucky Lake Mines Lucky Lake Mines (pooled)		7,140.00 2,560.00
200,000	Packard Pershing Mines (pooled)		1.00
100,000 4,000	Ran-Lux Mines (pooled)		1,000.00 40.00
.,	Per balance sheet — Statement I		\$18,975.00
	- 5. Salario dioci diatoriori i		<u> </u>
BAINING	CLAIMS HADED DEVELOPMENT LIGHTON	OD MINING	ICENOEC

MINING CLAIMS UNDER DEVELOPMENT LICENCES OR MINING LICENCES

	Number	
	of	
Aron	mining	0
Area	claims	Cost
Chibougamau, P.Q.	50	\$34,970.00
Gloucester County, N.B. — Mining licence No. 923 (1,224 acres)		1,054.04
Per balance sheet Statement I		000.004.04
rei balance sheet — Statement i		\$36,024.04

DECEMBER 31, 1967

(no personal liability)

AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENT OF SOURCE AND APPLICATION OF FUNDS

FOR THE YEAR ENDED DECEMBER 31, 1967

SO	UR	CE:
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Issue of 7% convertible redeemable debentures Sale of 100,000 shares of capital stock Government of Canada research and production grants Net revenue from Jones Wet Magnetic Separator operations Revenue from sale of super concentrates and ferrites Profit on sale of securities Recovered from Fina Metal Ltd. Depreciation	\$ 850,000.00 80,000.00 150,780.17 7,508.78 51,229.60 327.85 74,957.90 797.16	\$1,215,601.46
APPLICATION:		
Fixed asset additions	205,106.33	
Deferred expenditures — Development and pre-production \$ 311,846.46 Administrative \$ 103,078.65		
Organization 165.58	415,090.69	
Investment in Fina Metal Ltd. — net Advances to Ferrox Iron (New York) Ltd.,	80,258.35	
a subsidiary company	9,805.78	
Advances to related companies	6,500.00 3,963.89	
Repayment of mortgage capital Loss of Ferro-Magnetics Ltd. (N.P.L.)	20,315.66	741,040.70
Increase in working capital		\$ 474,560.76
Working capital at December 31, 1966		\$ 101,269.24 575,830.00
Working capital at December 31, 1967		\$ 474,560.76
Increase in working capital (as above)		\$ 474,000.76



The past year has seen the subsidiary companies of Cons. Quebec Smelting & Refining Ltd. move from research through product development and improvement, and on to production. The market outlook for ferrites and iron powder is excellent. Demand continues to grow in the automotive, appliance and electronics industries, as companies seek better ways of reducing the costs of production and improving the quality of their end products. Process development using the Jones Wet Magnetic Separator is being studied in a new field, with the support of the Federal Government. Other new applications for the magnetic separation of materials are being considered in the mineral processing industries.

FERROX IRON LTD.

During 1967, Ferrox Iron Ltd. concentrated on the development of commercially acceptable ferrite powders in a broad range to supply the needs of world markets.

World-wide markets for Permacal "D", used in telephone equipment, and for Permacal "W", used in radio and other loud speakers, are very well established. By midsummer, it is expected that sales will rise to the capacity of the Prescott, Ont., plant. As soon as current plant capacity is sold, this company will expand its production facilities. Now that the long transition from research to production has been accomplished successfully. no difficulties are expected in raising production up to 10 times existing capacity. Management foresees tripling the output of the Prescott plant within the next 12 months. The current rise in sales volume for "D" and "W" powders is being achieved despite a minor recession in the electronics industry.

Permacal "SW" (strontium ferrite powder) has

been improved to a commercially acceptable grade. Its use will be primarily for electric motor segment manufacture. This is a rapidly expanding part of the automotive industry, with applications in small electric power devices such as windshield wiper and fan motors. The permanent strontium ferrite magnets will replace the copper-wound DC electro-magnetic stators now used in these motors.

A soft ferrite, Permacal "NM", has also been developed for use in television sets, radios and antennas. This powder demonstrates the advantages of manufacturing for export in Canada where raw materials are abundant. Permacal "NM" contains nickel oxide, which is now in short supply on world markets, with users on an allocation basis. Since Canada is a major supplier of the world's nickel, Ferrox has been able to fill its nickel oxide requirements from domestic sources.

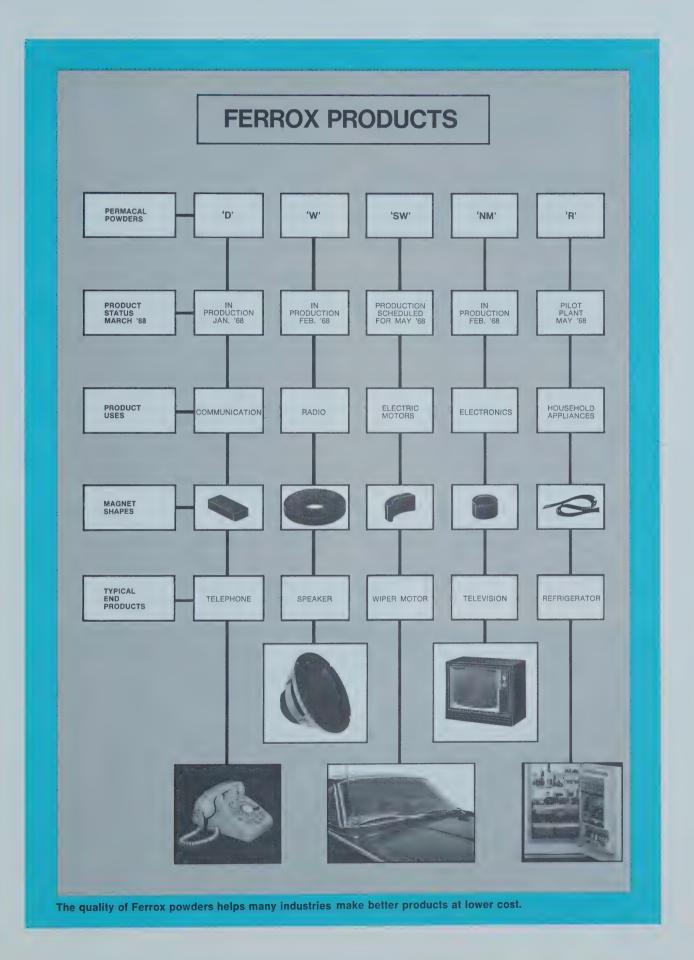
The Prescott plant is scheduled to start a pilot operation in May for the production of Permacal "R", designed for imbedding in rubber and plastic strips. These permanently magnetized strips will be used in refrigerator and freezer doors to ensure tight and automatic closure, and in other items such as toys.

The present status of Ferrox powders, their uses, magnet shapes and the typical end-product uses are outlined in the accompanying chart on page 15.

FERRO-MAGNETICS LTD.

This company continues to perform the test work involved in project development utilizing the Jones Wet Magnetic Separator. A number of new applications are being studied for customers.

Now that the basic processes for Ferrox Iron Ltd. and Fina Metal Ltd. have been established,



Ferro-Magnetics has undertaken a major program for an associated company, Baker Talc Limited. This work involves upgrading talc to commercially acceptable quality. It is being conducted with the assistance of the Federal Department of Industry's Program for the Advancement of Industrial Technology (P.A.I.T.), which has granted Ferro-Magnetics a research sub-contract in the amount of \$177,600.

Results of the test program to date are extremely encouraging. They indicate that commercial production of paint quality talc is a probability, with a pilot plant in operation within the next year. Ferro-Magnetics is to receive operating expenses from Baker Talc for its work, as well as an equity position in the company.

Much of Ferro-Magnetics work in the future will be devoted to overall project development for companies on an equity participation basis. Numerous such projects await evaluation in different fields, including work with strontium and uranium bearing ores.

FERROX IRON (NEW YORK) LTD.

Delays have been encountered in obtaining loans from United States Government Agencies, which were approved in April, 1967. These delays have resulted in consideration of an alternate route for financing, should final processing of the loans not develop in the near future.

The land and building for the plant have been purchased in Ogdensburg, N.Y., within easy reach of road, rail and water transport. U.S. distribution will be warehoused in Ogdensburg until production facilities are established. A sales office has been opened in Rochester, N.Y., to handle U.S. sales.

FINA METAL LTD. / LTÉE

Construction of the Fina Metal Ltd. plant is underway in Montreal, with the building completed and the first furnace scheduled to start up in September, 1968. Commercial production is to begin in December. Production of iron powder will be at the rate of 50 tons per day. Stearns-Roger Corp. of Denver, Colo., are the design engineers.

Fina Metal is a joint venture between Cons. Quebec Smelting & Refining Ltd. and Canadian Petrofina Ltd. The Fina Metal process was developed by Ferro-Magnetics to use a low-priced iron ore concentrate as the raw material. This is the only route that can ensure unlimited quantities of economical iron powder to meet the future demands for pressed metal by industry.

Estimates of 1968 iron powder consumption in North America are in the neighborhood of 200,000 tons. It is expected that the consumption of iron powder parts will triple in the next three years. Cadillac has been reported making automobile piston connecting rods from iron powder. If this trend becomes industry-wide, the requirement for this basic material in this application alone will probably equal the 1968 estimated iron powder output of 200,000 tons. Other existing uses of iron powder parts today include gears, transmission parts and instrument components.

The outlook for iron powder sales is very good. Fina Metal will be in a preferred position as a supplier with good raw material sources, high product quality and low costs.

Cons. Quebec Smelting & Refining has contracted to supply four Jones Wet Magnetic Separators for the Fina Metal project to produce the iron superconcentrates as the feed stock for manufacturing iron powder. Hydrogen for the reduction process will be supplied from the neighboring Canadian Petrofina refinery.



Fina Metal Plant at Montreal, Que.



Ferrite for Britain.

(no personal liability

OFFICERS:

President:

Vice-Pres. & Gen. Mgr.: Secretary-Treasurer: Development Manager: R.P. Mills

J.H. Morgan, Ph.D. J.O. Sabourin, F.C.I.S. W.J.D. Stone, P. Eng.

DIRECTORS:

John McG. Home, Q.C. - Montreal, Que. R.P. Mills - Montreal, Que. J.H. Morgan, Ph.D. - Montreal, Que. J.O. Sabourin, F.C.I.S. - Pointe Claire, Que. J. Douglas Streit - Toronto, Ont.

SUBSIDIARIES

FERROX IRON LTD.

(no personal liability)

OFFICERS:

President:

Vice-President: Managing Director: Secretary-Treasurer: R.P. Mills

J.H. Morgan, Ph.D. W.J.D. Stone, P. Eng. J.O. Sabourin, F.C.I.S.

DIRECTORS:

R.P. Mills - Montreal, Que.
J.H. Morgan, Ph.D. - Montreal, Que.
W.J.D. Stone, P. Eng. - Beaconsfield, Que.
J.O. Sabourin, F.C.I.S. - Pointe Claire, Que.
John McG. Home, Q.C. - Montreal, Que,

FERRO-MAGNETICS LTD.

(no personal liability)

OFFICERS:

President: Vice-President: Managing Director: Secretary-Treasurer: R.P. Mills

J.H. Morgan, Ph.D. W.J.D. Stone, P. Eng. J.O. Sabourin, F.C.I.S.

DIRECTORS:

R.P. Mills - Montreal, Que.
J.H. Morgan, Ph.D. - Montreal, Que.
W.J.D. Stone, P. Eng. - Beaconsfield, Que.
J.O. Sabourin, F.C.I.S. - Pointe Claire, Que.
John McG. Home, Q.C. - Montreal, Que.

FERROX IRON (NEW YORK) LTD.

OFFICERS:

President: Vice-President: Vice-President: Secretary-Treasurer: R.P. Mills

J.H. Morgan, Ph.D. W.J.D. Stone, P. Eng. J.O. Sabourin, F.C.I.S.

DIRECTORS:

R.P. Mills - Montreal, Que. J.H. Morgan, Ph.D. - Montreal, Que. J.O. Sabourin, F.C.I.S. - Pointe Claire, Que. W.J.D. Stone, P. Eng. - Beaconsfield, Que. John Winthrop - Ogdensburg, N.Y., U.S.A.

FINA METAL LTD.

OFFICERS:

President: Vice-President: General Manager: Project Manager: Treasurer:

Secretary:
Assistant Secretary-Treasurer:
Assistant Secretary:

Dr. John Rhodes Patton

R.P. Mills

W.J.D. Stone, P. Eng.

D.S. Hay H.J. Hughes A.W. McLeod

J.O. Sabourin, F.C.I.S.

N.G.D. Gray

DIRECTORS:

H.J. Hughes - Montreal, Que.
R.P. Mills - Montreal, Que.
J.H. Morgan, Ph.D. - Montreal, Que.
K.S.C. Mulhall - Montreal, Que.
Dr. John Rhodes Patton - Montreal, Que.
W.J.D. Stone, P. Eng. - Beaconsfield, Que.
W. Whigham - Montreal, Que.

(no personal flability)
Suite 400,
621 Craig Street West,
Montreal 3, Quebec.

FERROX IRON LTD.

(no personal liability)
P.O. Box 309,
Prescott, Ontario.

FERRO-MAGNETICS LTD.

(no personal liability)
P.O. Box 309,
Prescott, Ontario.

FERROX IRON (NEW YORK) LTD.

Ogdensburg Trust Co. Building, Ogdensburg, New York.

FINA METAL LTD.

C.P. 3006, Station "B", Montreal 2, Quebec.

(NO PERSONAL LIABILITY)

PROSPECTUS

New Issue: \$400,000.00 7% Convertible Debentures due February 1st, 1972 offered to Shareholders at par.

New Issue: A maximum of 550,000 common shares of the par value of \$5.00 each to be issued on conversion of the above \$400,000 of Debentures and of \$150,000.00 such Debentures previously issued at 100 such common shares for each \$100.00 principal amount of Debenture (i.e. \$1.00 per share if conversion takes place on or before February 1st, 1969); 66-2/3 such shares for each \$100.00 principal amount of Debenture (i.e. \$1.50 per share if conversion takes place on or before February 1st, 1970); 50 such shares for each \$100.00 principal amount of Debentures (i.e. \$2.00 per share if conversion takes place on or before February 1st, 1971); and 40 such common shares for each \$100.00 principal amount of Debenture (i.e. \$2.50 per share if conversion takes place before February 1st, 1972).

New Issue: 100,000 such common shares optioned to Merrill Island Mining Corporation, Ltd. (No Personal Liability) and J. Bradley Streit & Company Limited (each for one half) at a price of 80¢ per share valid until the close of business on May 30, 1968, in consideration of the firm underwriting of Debentures as set forth in Clause 14.

Registrar Transfer Agent and Trustee for the Debenture-Holders

Eastern & Chartered Trust Company, 625 Dorchester Boulevard West, Montreal, Quebec. 1901 Yonge Street, Toronto, Ontario.

This Prospectus is not and under no circumstances is to be construed as an offering of these Debentures or shares for sale in or to residents in the United States of America or in the Territories or Possessions thereof. No Securities Commission or similar authority in Canada has in any way passed upon the merits of the securities offered hereby and any representation to the contrary is an offence.

The present operation of the company and subsidiaries does not permit the company to provide for interest on the Debentures offered by this Prospectus nor for payment of the capital thereof. The company's capacity to pay such interest and capital will depend on its future operations

The securities hereby offered are speculative

MONTREAL, this 30th day of April, 1967

- 1. Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) has its head office at Suite 400, 621 Craig Street West, Montreal, Quebec.
- 2. The company was incorporated by Letters Patent dated November 27th, 1947, issued under the Quebec Mining Companies Act; by such Letters Patent the authorized capital was declared to be 3,000,000 shares of the par value of \$1.00 each. Supplementary Letters Patent dated May 25th, 1955, increased the authorized capital to 5,000,000 shares of \$1.00 par value each and further Supplementary Letters Patent dated April 28th, 1959, increased the authorized capital to 6,000,000 shares of \$1.00 par value of \$1.00 par value. On May 3rd, 1965, Supplementary Letters Patent increased the company's authorized capital from \$6,000,000.00 to \$12,500.000.00 and changed the par value of its shares from \$1.00 to \$5.00 each. Finally, Supplementary Letters Patent dated July 21st. 1965, changed the name of the Company to Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) Smeltage et Affinage Cons. du Québec Ltée. (Libre de responsabilité personnelle).
- 3. The Officers, Directors and Promoter are:

RANDOLPH POPE MILLS, Business Executive of 373 Olivier Avenue, Westmount, P.Q. is President, a Director and the Promoter of the Company;

JOHN HAROLD MORGAN, Consulting Geologist of 4691 Bessborough Avenue, Montreal, P.Q. is Vice-President, General Manager and a Director of the Company;

JOSEPH OVILA SABOURIN, F.C.I.S., Corporate Secretary of 51 Mount Pleasant Avenue, Pointe Claire, P.Q. is Secretary-Treasurer and a Director of the Company.

JOHN DOUGLAS STREIT, Stockbroker of 99 Arjay, Crescent, Willowdale, Ontario is a Director of the Company:

JOHN McGLINCHEY HOME, Q.C., Advocate of 29 Barat Road, Westmount, P.Q. is a Director of the Company:

- 4. Price Waterhouse & Co., C.A., of 5 Place Ville Marie, Montreal 2, P.Q. are the auditors of the Company.
- 5. Eastern & Chartered Trust Company, 625 Dorchester Boulevard West, Montreal, P.Q. and 1901 Yonge Street, Toronto 1, Ontario, is the company's registrar and transfer agent.
- 6. The authorized capital of the company is 2,500,000 shares of the par value of \$5.00 each of which 1,190,200 have been issued as fully paid and non-assessable.
- 7. The company has authorized the creation of its 7% Convertible Debentures due February 1st, 1972 in a total principal amount of \$1,000,000.00. \$150,000.00 of such Debentures have been issued and are outstanding. The company proposes to offer to its Shareholders the right to subscribe for \$400,000.00 of such Debentures at par. Merrill Island Mining Corporation, Ltd. (No Personal Liability) and J. Bradley Streit & Company Limited have undertaken to subscribe for any Debentures at par up to \$400,000.00 which may not be subscribed for by the Shareholders.
- 8. There are no shares or other securities of the company held in escrow.
- 9. (a) 4,451,000 shares (then of a par value of \$1.00 each but now represented by 890,200 shares of a par value of \$5.00 each) have been sold for cash as follows:—

700,000 shares were sold for 10¢ per share; 300,000 shares were sold for 15¢ per share; 960,501 shares were sold for 20¢ per share; 860,389 shares were sold for 25¢ per share; 200,000 shares were sold for 30¢ per share; 200,000 shares were sold for 35¢ per share; 200,000 shares were sold for 40¢ per share; 530,100 shares were sold for 50¢ per share; 200,000 shares were sold for 60¢ per share; 200,000 shares were sold for 65¢ per share; 100,000 shares were sold for 75¢ per share; 10 shares were sold for \$1.00 per share;

- (b) total cash received for the shares sold was \$1,322,257.-45;
- (c) no commissions have been paid on the sale of the above shares.
- 10. (a) The only securities other than shares sold for cash to date by the company were \$150,000.00 principal amount of 7% Convertible Debentures due February 1st, 1979.
- (b) Total cash received for such Debentures was \$150,000.00;
- (c) No commission was paid on the sale of such Debentures.
- 11. No shares have been issued or are to be issued or cash paid to any promoter except that R. P. Mills, as President and Chief-Executive, received a salary from the company of \$200.00 a month from 1951 to April 1959.

12. (a) The company holds the right to mine phosphate in certain properties in the Township of Portland West, Province of Quebec, and the following mining claims in the said Province of Quebec and the Province of New Brunswick under the appropriate Mining Acts:—

Designation	Particulars as to Access, Underground Development, Surface Exploration History, Work Done, etc	Development Expenses Made to Date and Proposed Furthur Expenditures	Names & Addresses of Vendors	Consideration Paid or Intended to be Paid	Date of Acquisition	Effective Date and Main Terms and Conditions of Acquisition	Name of Persons Who Have Received a More Than 5% Interest
Portland West Lots 7,8 & 9 Range VIII Lots 6,7 & 8 Range IX Lot 1, Range X	See report of J.H. Morgan Ph.D. Dated January 17th, 1967, attached to and forming part hereof	(\$121,689.45) () () () () () ()	Jacques Michel de Roussy, City of Montreal	\$4,800.00 paid	November 16, 1954	November 16, 1954 - no special conditions	Jacques Michel de Roussy is believed to have received 100% Interest
Lots 3 & 4 Range VII	See above report	(Further pro-) (posed) (expenses are) (\$5,000.00) () ()	Dame Elizabeth Isabelle Cumming, Widow of the Late John F. Higginson, Town of Buckingham	\$4,000.00 paid	November 28, 1955	November 28, 1955 - no special conditions.	Dame Cumming (Higginson) is believed to have received 100% Interest
McKenzie Town- Ship - Claims C-7645 1 & 2 C-7601 4 C-8951 2 & 3	See above report	(\$97,023.09) (No additional) (expenses) (proposed at) (this time) (Quebec Smelting & Refining Cor- poration (Numerous other properties ac- quired in same transaction)	1,500,000 shares of the capital stock of Quebec Smelting & Refining Corporation & assumption of liabilities of the Vendor. the whole valued at \$750,000.00	November 19, 1948	November 19, 1948 - claims were part of a larger number of claims ac- quired in the trans- action.	Randolph Pope Mills, 373 Olivier Avenue, Westmount, P.Q. Montreal; Joseph Simard, 1405 Peel Street, Montreal; Mirotan Investments Limited, Royal Bank Building, Montreal; Kaymack Investments Limited, Windsor Hotel, Montreal; addresses are as in 1949.

Designation	Particulars as to Access, Underground Development, Surface Exploration History, Work Done, etc	Development Expenses Made to Date and Proposed Furthur Expenditures	Wames & Addresses of Vendors	Consideration Paid or Intended to be Paid	Date of Acquisition	Effective Date and Main Terms and Conditions of Acquisition	Name of Persons Who Have Received a More Than 5% Interest
Rey Township (Cummings Lake Area) - Claims CB-4972 1 to 5 CG-4972 1 to 5 C-43684 1 to 5 C-46347 1 to 5 C-48469 1 to 5 C-86067 1 to 5 C-96315 1 to 5	See accre report	(expenses on) (above Mc-) (Kenzie Town-) (ship claims,) (S97.023.09) (no further) (expenses) (con-) (templated at) (this time)	were staked for the company in 1950, 1951 & 1955.	Stering costs only by company employees	1950 1951 & 1955	Claims accurred on dates staking recognized.	None
Roy Township (Marguerite Island) - Claims CG-4591 5 CG-4592 1 to 5 CG-4593 5 C-75023 2, 4 & 5	See accive report	(With accident) (Roy & Mc-) (Kenzie Town-) (ships claims) (S97,023.09) (No further) (expenses) (proposed at) (this time)	These diams were staked for the company in 1954	Staring costs only by company employees	1954	Clams accured on dates staking recognized.	None
Province of New Brunswick Gloucester Country - Claims PL-1681 5 to 8 PL-1682 1 to 3 PL-1683 6 & 7 PL-1684 1 to 3, 7 to 10 PL-1685 1 to 4, 6 & 7 PL-2708 11 to 15	See sbove report	(s182.309 60) (no further) (expenses) (proposed at) (this time) ()	22 of these claims were staked for the company in 1953 & 5 in 1957.	Staking costs only by company employees	1953 & 1957	Claims accurred on dates staking recognized.	'\coa

^{12. (}b) In 1949 the company acquired all the assets of Quebec Smelting & Refining Corporation in consideration of the issue to the Corporation as fully paid and non-assessable of 1.500.000 shares of the company's capital stock and the assumption of the liabilities of the Corporation including the expense of its dissolution. The said 1.500,000 shares of the company's capital stock were then distributed to the Shareholders of Quebec Smelting & Refining Corporation believed to number some six hundred and the Corporation was wound up;

12. (c) Properties formerly held by the company and now abandoned.

Number of	Location	Acquisition	Name of Vendor	Co	nsideration		Amount of Exploration	Name of Person	
Claims			AGIIAOI	Ca	sh	Shares	Work	who has received a more than 5% interest	
25	North Shore, Que.	Oct. 9, 1948 Oct. 16, 1948 Nov. 30, 1948 Dec. 1, 1948 Dec. 10, 1948	By Staking	\$	511.00		*See below (See Note 1)	·	
10	Bailloquet & Margane Twps., Que.	Dec. 10, 1949 Dec. 16, 1949	By Staking	\$	336.66	-	*See below (See Note 1)		
20	Arnaud Twp., Que.	Jan. 18, 1950 Feb. 1, 1950	By Staking	\$	281.24	part of	*\$ 7,484.78 (See Note 1)	_	
23	McKenzie Twp., Que. (Option)	Nov. 19, 1948	Acquired in Assets of Quebec Smelting & Refining Corp. (See Note 2)	\$	10,000.00			Gabriel Fleury, Chibougamau, Que	
4	Ascot Twp., Que.	Nov. 19, 1948	Acquired in Assets of Quebec Smelting & Refining Corp. (See Note 2)	\$	100.00		\$ 2,337.90		
4	Coleraine Twp., Que.	Apr. 8, 1949	By Staking	\$	40.76	_	\$ 3,472.00	_	
9	Orford Twp., Que.	Nov. 28, 1948 Dec. 29, 1948	By Staking	\$	20.00	_	\$ 3,950.20	_	
8	Rigaud-Vaudreuil Two Mountains Twp., Que.	Mar. 4, 1954	Pabineau Syndicate	\$	870.00	_	\$ 4,293.37	R.P. Mills, J.H. Morgan, J.O. Sabourin	
10	Barry Twp., Que.	Nov. 19, 1948	Acquired in Assets of Quebec Smelting & Refining Corp. (See Note 2)	\$	17,285.92		\$ 4,220.00	_	
8	Watford Twp., Que. (Option)	April 6, 1956	R. Bruce Graham, Toronto	\$	1,037.75	_	\$ 10,674.32	_	
6	Watford Twp., Que.	May 4, 1956	By Staking	\$	37.75	_	_	_	
60	Bergeres, Bosse & Berthiaume Twps., Que.	June 1 to 14th, 1956	By Staking	\$	2,120.00	-	\$ 4,108.29	-	
50	Townships Nos. 1429, 1430, 1531 Que.	July 6th to Aug. 2nd, 1956	By Staking	\$	120.00	-	_	_	
10	Jersey Twp., Que.	Jan. 25th & 26th, 1958	By Staking	\$	550.00	March	\$ 1,860.20	-	

12. (c) continued.

Number	Location	Acquisition	Name of Vendor	Co	nsideration		Amount of Exploration	Name of Person who has received
Claims			4011401	Ca	sh	Shares	Work	a more than 5% interest
1	Portland W., Que.	Dec. 19,1952	By Staking	\$	20.00	_		_
10	Portland W., Que.	Nov. 27 & 29th, Dec. 1, 2 & 11, 1948	By Staking	\$	48.00			_
18	Portland W., Que.	Oct. 7th & 8th, 1954	By Staking	\$	174.70	-	Promotes	
10	Montigny Twp., Que.	April 24, 25, 30, May 6, 1949	By Staking	\$	373.59	egoniud	-	_
3	Montigny Twp., Que.	May 15, 1954	By Staking	\$	30.00	_	\$ 2,690.36	_
6	Ducros Twp., Que.	June 16 & 25th, 1956	By Staking	\$	137.75	_	Southern	_
19	Senneville Twp., Que.	Feb. 5th, 1960	By Staking	\$	284.40	American	_	_
20	Tiblemont Twp., Que.	Feb. 29, 1960	By Staking	\$	284.40	_		_
10 10	Bellechasse Twp., Langevin Twp., Que.	July 16th, 17th, & 18th, 1960	By Staking	\$	537.40	_	-	_
12	Chesham Twp., Que.	Oct. 27 & 28th, 1960	By Staking	\$	569.19	_	_	_
1	Hinchinbrooke Twp., Ont.	Aug. 1st, 1950	E.E. Campsall	\$	1,000.00	***************************************	\$ 773.13	
20	McCorkill Twp., Que.	May 31st & June 1, 1957	By Staking	\$	110.00	Across 1		_
20	Bourbaux & Berthiaume Twps., Que.	June 25th & July 2nd, 1957	By Staking	\$	40.00	-	_	_
1	Beresfort Twp., Que.	March 26, 1950	By Staking	\$	70.00	toveling	\$ 3,760.00	
12	Onslow Twp., Que.	Dec. 1, 6, 7, & 9th, 1963	By Staking	\$	120.00	http://maj	\$ 1,816.58	
18	Gand Twp., Que. 50% Option	Jan. 28th, 1960	Dennis Agar, Ed. Viney, Leo Brossard	\$	1,250.00	Sarat)	\$ 2,428.00	Dennis Agar, Ed. Viney, Leo Brossard
Participation in Exploration Rights	Gaspe Bay North, Que.	Jan. 14, 1959	English-Miner Mineral Exploration Partnership	\$	500.00		→	-

Number of Claims	Location	Acquisition	Name of Vendor	Consideration Cash	Shares	Amount of Exploration Work	Name of Person who has received a more than 5%
							interest
General Prospecting	Gaspe Area, Que.	Oct. Nov. Dec. 1962	N/A	_	-	\$ 4,515.16	_
		Mar. Apr. May 1964	N/A	_	Enemal)	\$ 3,427.58	_
Participation	Brookfield Barite Property, N.S. Syndicate	Mar. 18, 1963	Corporation Administrative Services Ltd.	\$ 2,500.00	_	\$ 2,305.85	
10	Sunbury City, N.B.	Sept. 10, 1954	By Staking	\$ 134.45	_		_
Participation	McCombe Prosp. Syndicate	Feb. 22, 1962	_	\$ 200.00		_	_
Participation	Nova Scotia Gas & Oil Lease Syndicate	Oct. 9, 1958	Lura Corp.	\$ 2,500.00		_	
Participation Burrex Mines Limited Prospecting Syndicate	Province Quebec	May 26, 1958	N/A			\$ 2,500.00	_
30	Twp. #4953, Que.	Mar. 8, 1962	W.C. Bidgood	\$ 2,400.00	towns	\$ 7,477.07	W.C. Bidgood
16	Montague Prop. Halifax City, N.S. Participation	Nov. 18,1960	Lura Corp.	\$ 2,500.00		\$ 6,320.00	R.P. Mills
70	18 in Carpiquet & 52 in Urban Twps., Que.	Nov. 19, 1948	Acquired in Assets of Quebec Smelting & Refining Corp. (See Note 2)	\$250,000.00	_		_
15	Urban Twp., Que.	Oct. 14, 15 & 18th, 1955	By Staking	\$ 46.00	_		_
15	Urban Twp., Que.	Feb. 10, 11 & 12th, 1960	By Staking	\$ 386.74			_
20	Urban Twp., Que.	Mar. 8, 9, 10 & 11th, 1961	By Staking	\$ 556.55	maned		_
20	Urban Twp., Que.	Mar. 28, 29 & 30, 1964	By Staking	\$ 1,187.64	-		_
20	Urban Twp., Que.	June 19, 20, 21, 1965	By Staking	\$ 382.69	-	\$ 60,907.45	-
25	Township #1223, Que.	Dec. 12th & 13th, 1958	By Staking	\$ 660.97	_	\$ 50.99	_
15	Township #1931, Que.	Sept. 2, 3 & 4th, 1963	By Staking	\$ 2,030.00	_	\$ 4,448.72	-

12. (c) continued.

Number of	Location	Acquisition	Name of Vendor	Cons	ideration		Amount of Exploration	Name of Person who has received
Claims			Foliadi	Cash		Shares	Work	a more than 5% interest
15	CHIBOUGAMAU AREA Hazeur Twp., Que.	- QUEBEC Jan. 13th & 15th, 1952	By Staking	\$	71.15	_	*(See Note 3)	· <u> </u>
15 Option	Barlow Twp., Que.	May 6th, 1955	Wallace F. McQuade	Work Option Dev. only			*(See Note 3)	
45	Barlow Twp., Que.	Feb. 3, 4, 5th & 7th, 1955	By Staking	\$	528.42		*(See Note 3)	_
10	Druillettes & Hazeur Twps., Que.	Feb. 19th & 20th 1954	By Staking	\$	20.00		*(See Note 3)	Salvenia
3	Barlow Twp., Que.	July 4th, 1955	By Staking	\$	30.00		*(See Note 3)	
25	Lesperance Twp., Que.	May 24th, 25th & 26th, 1954	By Staking	\$	250.00	_	*(See Note 3)	
15	Lesperance Twp., Que.	Aug. 3rd & 4th, 1959	By Staking	\$	60.00		*(See Note 3)	-
20	Lesperance Twp., Que.	June 14th & 15th 1964	By Staking	\$	200.00	_	*(See Note 3)	_
6	Lesueur Twp., Que.	May 29th & 30th, 1954	By Staking	\$	60.00		*(See Note 3)	-
14	Lesueur Twp., Que.	June 29th, 1954	By Staking	\$	150.00	Based	*(See Note 3) \$343,465.91	Parallel State of the State of
			Total	\$305	,715.12	Totai	\$489,287.86	
		Less Profit on sale Chibougamau Area fr		\$ 29	,431.75			
				\$276	,283.37			

Note 1 — The total cost of the exploration work on the 25 claims (North Shore, Quebec), 10 claims in the Bailloquet and Margane Townships and the 20 claims in the Arnaud Township was \$7,484.78.

Note 2 — Value set by Directors for Accounting purposes at time of acquisition of Assets of Quebec Smelting & Refining Corporation.

Note 3 — The total cost of the exploration work performed on the claims in the Chibougamau area was \$343,465.91.

13. The access to, known history of and work and improvement on the mining properties of the company are described in a report of John Harold Morgan, Consulting Geologist, dated January 17th, 1967, included in and forming part of the present Prospectus.

14. The company now offers to its Shareholders, except those resident in the United States of America or its Territories or Possessions, the right to subscribe for \$400,000.00 of its 7% Convertible Debentures at par. Each Shareholder with shares registered in his name at the close of business on May 20th, 1967 may subscribe for any number of Debentures and excess subscriptions will only be reduced if the issue is over-subscribed and then in such manner as the Board of Directors of the company may determine. This offer is open for subscriptions and payment to the company at the close of business on May 30, 1967. Merrill Island Mining Corporation, Ltd (No Personal Liability) and J. Bradley Streit & Company Limited have undertaken (each for one half) under date of April 20th 1967 (amended April 28th, 1967) to subscribe for any of the Debentures which may not be purchased by Shareholders on the expiry date and to pay for the same at par within Thirty (30) days from such expiry date. In consideration of the foregoing undertaking by Merrill Island Mining Corporation, Ltd. (No Personal Liability) and J. Bradley Streit & Company Limited, an Option also dated April 20th 1967 (amended April 28th, 1967) has been granted to Merrill Island Mining Corporation, Ltd. (No Personal Liability) and J. Bradley Streit & Company Limited (each for one half) to purchase the whole or any part or parts of 100,000 unissued common shares of Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) capital stock at a price of Eighty Cents (80¢) per share to be exercised at any time and from time to time up to and including the close of business on May 30, 1968.

There are no sub-underwriting Agreements, Suboption Agreements or Assignments of the rights under the above Agreements and none are proposed to be given.

The only person or company believed to have more than a Five Percentum (5%) interest in Merrill Island Mining Corporation, Ltd. (No Personal Liability) is Merrill, Lynch, Pierce, Fenner and Smith Incorporated of 11 King Street, West, Toronto, Ontario and 70 Pine Street, New York, which company is the registered holder of 275,597 shares. Merrill, Lynch, Pierce, Fenner and Smith are Stockbrokers and it is probable that the Certificates registered in their name are held for other persons. The only persons owning more than 5% of J. Bradley Streit & Company Limited are John Douglas Streit of 99 Arjay Crescent, Willowdale, Ontario, and Charles William Streit of 88 Stratford Crescent, Willowdale, Ontario. 15. Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) may contribute \$120,000.00 during the next twelve months to its subsidiary Ferrox Iron Ltd. (No Personal Liability), as the equivalent of estimated amounts which will be forthcoming from the Defence Research Board during the period under a grant from that Board for research purposes in a total amount of \$331,000.00 payable over a period of two and three-quarter years from July 1966. It is estimated that expenditures for research during such twelve month period will amount to approximately \$20,000.00 per month of which \$10,000.00 will be paid by the Defence Research Board and \$10,000.00 will be contributed by Ferrox Iron Ltd. (No Personal Liability). It is expected that a large part of the funds required for research over the period of two an one-half years will be realized from profits to be made by Ferrox Iron Ltd. (No Personal Liability) from production of ferrite powder and ferrite magnets.

Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) plans to immediately expand the capacity of the Ferrox Iron Ltd. plant at Prescott, Ontario, to 4 tons per day of ferrite powder at a cost of \$154,689, of which \$24,189 is required for addition to present buildings and construction of a new mineral laboratory, and \$130,500 for additional equipment and installation.

Cons. Quebec Smelting & Refining Ltd. (No Personal Liability), under a loan agreement with New York State authorities, will contribute a maximum of \$300,000,00 as working capital to its subsidiary, Ferrox Iron (New York) Ltd., a company formed in the State of New York to produce ferrite powder and ferrite magnets. Loans totalling \$810,000.00 from various Government agencies and others in the United States have been approved, such loans to Ferrox Iron (New York) Ltd. are for a period of eleven years at rates of interest varying from 2-3/4 to 6%. A group of private investors in Ogdensburg, New York, is prepared to purchase up to \$130,000.00 of Convertible Debentures to be issued by Ferrox Iron (New York) Ltd. and in such event, such private investors' subscription will reduce the contribution of \$300,000.00 contemplated to be made by Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) to \$170,000.00.

Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) is under obligation to contribute \$9,745.00 being the balance of \$49,000.00 which Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) undertook to subscribe to Fina Metal Ltd. for a 49% interest in that company. Canadian Petrofina Limited will contribute \$51,000.00 to such company and will obtain a 51% interest therein. The total of \$100,000.00 will be used in connection with the joint programme for the production of iron powder from iron superconcentrates (produced by the Jones process employing the Jones Wet Magnetic Separator) by reduction by hydrogen and/or carbon monoxide. Such expenditures will cover the operation of an iron powder sample production plant at Prescott, Ontario, in operation for a period of one year. These will also include sales and marketing expenditures and engineering and design work on a proposed plant with a capacity of fifty tons per day production of iron powder.

A maximum of \$25,000.00 of additional capital may be required in the next year by Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) subsidiary, Ferro-Magnetics Ltd. (No Personal Liability), although Ferro-Magnetics Ltd. (No Personal Liability), is at present, self-supporting as fees from test programmes and royalties from sales of Jones Separators cover present expenses.

Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) has a number of other programmes underway designed to ascertain the efficiency of the Jones Wet Magnetic Separator with respect to various metallic and non-metallic materials. No capital expenditure is contemplated in respect of such programmes which are now self-supporting.

It is contemplated that Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) will expend approximately \$1,500.00 on a geochemical survey to be

carried out on the base metal claims in the Pabineau River area, New Brunswick. The company will also expend approximately \$5,000.00 on the necessary assessment work on its other mining claims. Finally, an expenditure of approximately \$5,000.00 may be made to test the possibility of upgrading the phosphate ores in Portland West township by use of the Jones Wet Magnetic Separator.

The sale of \$400,000.00 of 7% Convertible Debentures at par will provide a total of \$400,000.00. The total of the proposed expenditures as outlined above amount to \$370,245.00. It is anticipated that operating profits of Ferrox Iron Ltd. (No Personal Liability) will provide some additional capital, but if not, the proposed research expenditures can be reduced accordingly.

- 16. The company has been incorporated for more than one year prior to the date of the Prospectus.
- 17. The company has created no indebtedness not shown in the Balance Sheet dated December 31st, 1966, accompanying this Prospectus but may from time to time arrange temporary financing using as collateral securities owned by the company.
- 18. (a) Randolph Pope Mills is President of Merrill Island Mining Corporation, Baker Talc Limited, Chib Kayrand Copper Mines Limited and has been an Officer or Director of a number of other companies for some twenty-five years.

John Harold Morgan is and has been a Consulting Geologist for some twenty years and is Vice-President of Baker Talc Limited.

Joseph Ovila Sabourin is Secretary-Treasurer of Merrill Island Mining Corporation, Ltd. and of Baker Talc Limited and has been Secretary-Treasurer of a number of other companies for some eighteen years.

John McGlinchey Home, Queen's Counsel, has been a partner in the firm of O'Brien, Home, Hall & Nolan; O'Brien, Home, Hall, Nolan & Saunders, and O'Brien, Home, Hall, Nolan, Saunders, O'Brien & Smyth since 1953.

John Douglas Streit is Vice-President of J. Bradley Streit & Company Limited, Stockbrokers, and has been connected with that firm since 1950.

- (b) The only interest direct or indirect which any Director or Officer has ever had in any property acquired or to be acquired by the company is set out in the answer to item 12 (a) hereof.
- (c) No remuneration has been paid during the last financial year to Officers or Directors of the company. With the expansion of the company's operations, payment of salary will be made to the President, Vice-President and General Manager, and the Secretary-Treasurer of the company, but such remuneration will not exceed \$25,000.00 per year.
- 19. No dividends have been paid by the company for the last five years.
- 20. No person by reason of the beneficial ownership of securities of the company or of any agreement in writing is in a position or is entitled to elect or cause to be elected a majority of the Directors of the company.
- 21. Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) acquired all the rights in the Americas to the Jones Wet Magnetic Separator. Tests have been

conducted on a number of metallic and non-metallic metals and some thirteen pilot machines have been sold. The use of the Jones Wet Magnetic Separator for beneficiating molybdenum and tungsten ores has been assigned to American Metal Climax Inc. in consideration of American Metal Climax Inc. financing the construction of a prototype machine for its own use with a nominal capacity of 30 tons per hour at a cost of approximately \$400,000.00. This prototype separator has been installed at the plant of American Metal Climax Inc. in Colorado.

Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) has granted to the Stearns-Roger Manufacturing Company of Denver, Colorado, a license to build, lease and sell Jones Separators having a capacity of three tons per hour or more.

Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) will receive a royalty of 20% of the manufacturing costs of separators constructed by the Stearns-Roger Manufacturing Company and will have to pay to Jones and Jones Separators Limited an aggregate of 10% of such manufacturing costs.

W. J. Dennis Stone, under an agreement with Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) is entitled to thirty-one percentum (31%) of the net profits obtained by Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) from the manufacture, sale, lease, use and licensing of Jones Wet Magnetic Separators by Cons. Quebec Smelting & Refining Ltd. (No Personal Liability).

The foregoing constitutes, under the Quebec Securities Act, full, true and plain disclosure of all material facts in respect of the offering of securities referred to above, and there is no further material information applicable other than in the financial statements or reports required or exigible.

CONS. QUEBEC SMELTING & REFINING LTD. (No Personal Liability)

Signed: R. P. Mills

Signed: J. H. Morgan

Signed: J. D. Streit

Signed: J. McG. Home

Signed: J. O. Sabourin

April 30th, 1967

To the best of our knowledge, information and belief, the foregoing constitutes, under the Quebec Securities Act, full true and plain disclosure of all material facts in respect of the offering of securities referred to above, and there is no further material information applicable other than in the financial statements or reports required or exigible. In respect of matters which are not within our knowledge, we have relied upon the accuracy and adequacy of the foregoing.

MERRILL ISLAND MINING CORPORATION, LTD. (No Personal Liability)

Signed: R. P. Mills, President

Signed: J. O. Sabourin, Secretary-Treasurer

J. BRADLEY STREIT & COMPANY LIMITED

Signed: J. Douglas Streit

Signed: C. William Streit

GEOLOGICAL REPORT

PORTLAND WEST TOWNSHIP QUEBEC

PROPERTY AND LOCATION

The area of the property in Portland West township is about 1700 acres. It includes the Little Union, High Rock, Cap Rock and Big Union mines. The Little Union includes lots 3 & 4, Range VII; the Big Union lots 3, 4, 7, 8 & 9, Range VIII, lots 6, 7 & 8 Range IX and lot 1, Range X; west part lots 1 & 2, Range VIII in Cap Rock and lots 5, 6, 7 & 8, Range VII in High Rock.

The nearest town is Notre Dame de la Salette in the valley of the Lievre River, two miles by road from the property, on Provincial Highway number 35, 20 miles north from railhead at Buckingham, Quebec.

HISTORY

A number of mines in the Lievre River district produced apatite for export to England between 1880 and 1894 and were closed when prices dropped after discovery and use of high grade deposits of phosphate rock in Florida. Apatite and phosphate rock are almost identical chemically. They are used for the manufacture of phosphate fertilizers, elemental phosphorous, and a number of phosphate chemicals.

The properties held by Cons. Quebec Smelting & Refining Ltd. were acquired in 1948. A program of research, exploration and development has since been carried out. In 1949-50 some of the old workings at High Rock were cleaned out and extended. 20,149 feet of diamond drilling was done in 140 holes. Geological mapping and surveying of workings was carried out. Concentration tests were conducted using flotation to produce concentrates grading over 80 percent tri-calcium phosphate. Sink-and-float tests were made. Tests were performed at the Mines Branch in Ottawa on production of a fused phosphate fertilizer. Recently concentration tests have been made using the Jones High Intensity Wet Magnetic Separator to separate apatite from the pyroxenite that forms most of the gangue in the deposits.

There are no buildings or equipment now on the property.

GEOLOGY

The old mines and pits lie along the crest or southwest side of a northwest-trending ridge, west of the Lievre River. The ridge rises 600 feet above the river. The bottom of the valley on the southwest side of the ridge is 400 feet below the crest of the ridge.

The Lievre River area forms part of the Grenville sub-province of the Precambrian Shield. The Grenville series consist of highly metamorphosed volcanics and sediments, now a complex of gneisses, schists, quartzites, pyroxenites and crystalline limestones. These rocks are cut by acid to basic igneous intrusives. In the apatite mining area granite and pegmatite are prominent.

Apatite occurs most commonly in association with pyroxenite. It occurs as irregular masses of nearly pure apatite, as streaks and stringers of variable thickness, and as disseminations. Bodies containing apatite pinch and swell and no well-defined strike, dip or pitch has yet been defined. Apatite also occurs in pegmatite and in a variety of pegmatite, peculiar to the apatite regions, known as leopard granite. In the pegmatitic occurrences apatite forms large crystals with rounded corners. At the Little Union mine apatite occurs in vein-like masses of pink calcite, usually as crystals with rounded outlines.

Phlogopite mica occurs in variable amounts with the apatite. The High Rock workings are relatively free of this mineral and it is abundant at Big Union.

No structural pattern that might govern the concentration of apatite has been recognized. Faults striking

northwest and northeast cut the apatite bodies. In some places there appears to be control by jointing. Drag folding of the pyroxenite may have resulted in some apatite concentrations.

The origin of the apatite and pyroxenite has been a subject of controversy for many years. One view is that they were formed by metamorphism of siliceous phosphatic limestones with some migration of apatite. Intrusions of pegmatite assimilated phosphate which crystallized in large crystals of apatite. Cross-cutting relations of the pyroxenite are explained as due to plastic flow during metamorphism.

Another theory is that pyroxenite was intruded as molten magma, either bringing phosphate with it from igneous sources or assimilating it en route. It is also possible that apatite was introduced by pegmatitic solutions.

USES OF PHOSPHATE

The principal use of phosphate rock is in the manufacture of fertilizers. Most is converted to superphosphate by treatment with sulphuric acid. Compounds of higher phosphorous content, such as triple superphosphate and ammonium phosphate, are being used in ever increasing quantities as fertilizers. Phosphate rock and superphosphate are used in stock feeds instead of bone meal after removal of fluorine.

Phosphate rock is reduced in electric furnaces to produce elemental phosphorous for the manufacture of matches, phosphoric acid, and a number of chemicals used in industry in soft drinks, baking powder, water softening compounds, water purification, detergents, etc.

In Canada 85 to 90 percent of the phosphate rock used goes into fertilizers, two percent into stock feeds and the rest into phosphate chemicals and phosphorous. All phosphate rock used in Canada is imported, mostly from Florida and Montana.

PROCESSING

Tests made several years ago indicate that apatite can be concentrated by flotation with 90 percent recovery and a grade of 80 to 85 percent BPL (bone phosphate of lime, or tri-calcium phosphate). Imported phosphate rock runs 70 to 75 percent BPL.

The Sink and Float Corporation conducted tests on High Rock ore. These show that pyroxenite, apatite and mixtures of the two can be separated from pegmatite, gneiss, quartzite etc. in sizes of $\frac{1}{2}$ inch to two inches. Tests with the Humphreys spiral indicate that similar separation can be achieved on the finer fractions of the feed.

Preliminary testing of the High Rock material has been done on the Jones Wet Magnetic Separator. Pyroxenite is magnetic in this machine and apatite is non-magnetic so that clean separations of these two minerals can be made.

A simple flow sheet is proposed to effect concentration of the apatite from the ores of the Lievre River district. After grinding to minus 20 mesh, spiral concentration should result in elimination of most of the quartz, feldspar and calcite on the side of lower specific gravity, and pyrite on the high side, leaving a preliminary concentrate composed essentially of pyroxenite and apatite. This concentrate would then be separated in the Jones Separator to apatite and waste pyroxenite. A test program to perfect this separation is proposed.

MARKETS

While fertilizer is the major market for phosphates, the value for this purpose is low. As a relatively pure apatite concentrate is anticipated by the process outlined above, marketing should be aimed at the higher priced uses of phosphates, such as water softeners and other chemicals derived from phosphoric acid or elemental phosphorous.

RECOMMENDATIONS

It is recommended that a test program be carried out to determine the feasibility and capacities of equipment for the flowsheet outlined above. The cost of this program is estimated to be \$5,000.

McKENZIE TOWNSHIP PROPERTY CHIBOUGAMAU AREA, QUEBEC

PROPERTY AND LOCATION

Five claims are held in the southeast quarter of McKenzie township, about three miles east of the town of Chibougamau, They adjoin, in part, the road from town to the Patino and Henderson mines. They are in two groups, about one quarter of a mile apart. The southerly group is about 80 acres in area and consists of two claims numbered C 7645, claims 1 and 2. The northerly claims are numbered C 7601, claim 4 and C 8951, claims 2 and 3, an area of approximately 120 acres.

HISTORY

These claims were part of a larger group staked in 1944. Geological mapping was done in 1947 and magnetometer and electrical resistivity surveys were made in 1951 and 1956. Four diamond drill holes totalling 1814 feet were drilled on the claims now held. The claims were optioned by Rosario Explorations between 1962 and 1964. This company conducted surface exploration and mapping. There are no buildings or equipment belonging to Cons. Quebec Smelting & Refining Ltd., on this property.

GEOLOGY

The part of McKenzie township in which these claims lie is underlain by a series of intermediate to basic volcanics with intruded sills of gabbro and diorite that are more or less conformable with the volcanics. These are part of the south limb of a syncline lying to the north of the Dore Lake anorthosite mass and striking a few degrees north of east.

On the property adjoining to the east, Bruneau Mines Ltd. are developing copper-gold deposits through two adits. These deposits occur in gabbro and acidic volcanics. Similar occurrences have not yet been found on the Cons. Quebec Smelting & Refining Ltd. property.

RECOMMENDATIONS

Should the efforts of Bruneau Mines Ltd. on the adjoining property prove successful in outlining ore, additional drilling of this property will be warranted.

CUMMINGS LAKE — ROY TOWNSHIP PROPERTY CHIBOUGAMAU AREA, QUEBEC

PROPERTY AND LOCATION

This property contains 35 claims numbered CG 4970, claims 1-5; CG 4972, claims 1-5; C 43684, claims 1-5; C 46347, claims 1-5; C 48469, claims 1-5; C 86067, claims 1-5; and C 96315, claims 1-5; an area of about 1400 acres. The Waconichi-Albanel highway crosses the northwest part of the property six miles east of Chibougamau.

HISTORY

The claims comprising this property were staked in 1950, 1951 and 1955. Previous history is unknown. The property was optioned to Rosario Explorations from 1962 to 1964. There are no company-owned buildings or equipment on the property.

DEVELOPMENT

In 1956 geological, electrical resistivity and magnetometer surveys were performed over the property area, followed by diamond drilling of 12 holes, a total of 7150 feet. A few Packsack diamond drill holes were put down in 1957 and 1958. A detailed long-wire electromagnetic survey was done on nine claims in 1961.

GEOLOGY

This property lies within a belt of metamorphosed volcanics and sediments, intruded by a complex of basic and ultrabasic sills, that trends a few degrees north of east across the north side of the Dore Lake anorthosite mass. Flat-lying conglomerate of the Chibougamau series covers part of the most easterly claims. The property is within the south limb of a major syncline. Dips are steep to vertical. A number of northeasterly and north-south striking faults cut across this belt.

Showings of copper mineralization are found within the property at several locations. Testing by trenching and diamond drilling has not yet located areas of commercial mineralization. About two miles to the southwest Bruneau Mines Limited are testing copper-gold occurences underground through two adits into a hillside. Four miles west of the property Norbeau Mines Limited are producing gold from high grade quartz veins in basic sills of the complex. To the south and southwest, in the anorthosite mass, several mines are producing coppergold ore.

RECOMMENDATIONS

Renewed exploration of the property, testing electromagnetic anomalies by diamond drilling, is warranted if development of the Bruneau property is successful.

MARGUERITE ISLAND, ROY TOWNSHIP PROPERTY CHIBOUGAMAU AREA, QUEBEC

PROPERTY AND LOCATION

This property has an area of 457.835 acres in ten claims, numbered CG 4591, claim 5; CG 4592, claims 1-5; CG 4593, claim 5; and C 75023, claims 2, 4 and 5. The group covers part of Marguerite Island and the adjoining mainland to the east. It is accessible over Lake Chibougamau.

HISTORY

The claims were staked in 1954 and were jointly held by Baker Talc Limited and Quebec Smelting & Refining Limited. The joint group was divided, with Quebec Smelting & Refining Limited retaining the claims listed above. There are no buildings or equipment on the property.

GEOLOGY

This property is underlain by, anorthosite of the Dore Lake mass and gabbroic border phases of anorthosite. Serpentinized peridotite with minor asbestos content is intrusive into the anorthosite on Marguerite Island.

Two producing copper-gold mines, The Henderson mine of Campbell Chibougamau and the Portage Island mine of Patino, lie one mile west and northwest of the Marguerite Island property.

DEVELOPMENT

In 1955 and 1956 electrical resistivity and magnetometer surveys were made, followed by some electromagnetic check surveys. Geological mapping was attempted, but only two outcrops of anorthosite were found, on the shoreline of Lake Chibougamau. Twelve diamond drill holes, a total of 11,160 feet were drilled. Approximately 70 percent of this footage was drilled on the claims now held by Cons. Quebec Smelting & Refining Ltd. Small amounts of copper mineralization were encountered and, in the peridotite, a few veins of crossfibre asbestos. The claim boundaries have been surveyed.

RECOMMENDATIONS

In view of the proximity of this property to producing mines, it is recommended that it be retained. Additional work is not recommended at this time.

PABINEAU RIVER AREA GLOUCESTER COUNTY, NEW BRUNSWICK

PROPERTY AND LOCATION

This property is located 25 miles southwest of Bathurst, New Brunswick. It contains 27 claims numbered PL 1681, claims 5, 6, 7 and 8; 1682, claims 1, 2 and 3; 1683, claims 6 and 7; 1684, claims 1, 2, 3, 7, 8, 9 and 10; 1685, claims 1, 2, 3, 4, 6 and 7; and 2708, claims 11, 12, 13, 14 and 15. Tag numbers are 2277-2280, 2283-2285, 2406, 2407, 2411-2413, 2417-2424, 2426, 2427 and 70101-70105. The property boundary has been surveyed; the area is 1223.88 acres. It is about three miles long, east-west, and up to one mile wide.

The property adjoins west of the Brunswick No. 12 mine where mining and milling of a large zinc-lead-silver orebody is underway. It is readily accessible by roads that cross the property.

HISTORY

This property originally contained 22 claims staked in 1953. Five claims were staked in 1957. There are no company-owned buildings or equipment on the property.

DEVELOPMENT

In 1953 lines were cut east-west at 400 ft. intervals and an electrical resistivity survey performed. Some magnetic and self-potential and electro-magnetic check work was done in the areas of low resistivity.

The property was prospected by A.C. Stevens and trenches were dug to investigate some of the areas of low resistivity. Mineralized float led to the discovery of a showing with zinc-lead-silver mineralization. Trenching and diamond drilling traced the zone east-west for a distance of 2000 feet.

A gravity survey of the zone was made and a number of areas on the property have been surveyed electromagnetically. Geological mapping and some geochemical work was done in 1957. A magnetometer survey was completed in 1960.

Fifty six diamond drill holes have been drilled between 1953 and 1962. Total footage is 26,818 feet. Most of this footage was drilled on the mineralized zone.

Geochemical sampling was done in late 1966 in selected areas of the property. This work is not yet complete.

GEOLOGY

The property is underlain by metamorphosed sediments and volcanics. Sedimentary material is more abundant than the volcanics. The sediments are chiefly argillite and slate, with some quartzite, greywacke, chert and magnetic iron formation. The volcanics are chiefly andesite interbedded with the sediments. Acidic porphyries may be volcanic in origin or they may be intrusive, or both. These acidic rocks sometimes resemble the "crystal tuffs" that occur near most orebodies in New Brunswick; they occur in the central and northeastern parts of the property. A small plug of diorite and gabbro underlies the southeast part of the claims and a few small dykes of diorite have been found in the central part. The western claims contain much graphitic slate as indicated by trenching, drilling and electrical conductivity of the bedrock. Outcrops are rare in this part of the property.

The Pabineau River property is on part of a large fold. The regional strike is nearly north-south but part of the property lies within the fold so that strikes in the central part are nearly east-west.

The mineralized zone strikes east-west and is in a cherty argillite bordered on the north by a porphyritic rhyolite, (in places resembling crystal tuff) and by graphitic slate. The cherty argillite is succeeded to the south by massive andesite interbedded and interfingered with cherty iron formation, ferruginous slate, slate and

chert. The better concentrations of zinc-lead-silver mineralization appear to be associated with small drag-folds. Faulting in the vicinity of the zone is indicated by a kaolinized gouge at the contact between the rhyolite and cherty argillite.

The best intersections were in hole no. 16 where 7.1 feet of core contains 9.83% zinc, 4.00% lead, 0.31% copper and 12.28 ounces of silver per ton and in hole 32 where 7.0 feet of core contains 7.84% zinc, 2.12% lead, 0.33% copper and 16.04 ounces of silver per ton. The mineralization is similar to that in the Brunswick orebodies, but a body of minable size has not yet been located.

A small mineralized zone striking north-south in a geological environment similar to the Quebec Smelting mineralized zone occurs on the Headway property to the southeast. This may be on the other limb of the large fold. The area between the zones deserves detailed attention, especially around the nose of the fold where thickening might occur.

GEOPHYSICS

The magnetometer survey reveals the presence of a number of bands of magnetic iron formation, mostly short and lenticular. Some of these have been located in drilling. The trend of the formations around the fold is fairly well outlined. The electrical surveys show the presence of a number of conducting zones, especially in the west part where graphitic slate is abundant. A gravity survey was conducted in an area 2400 by 2800 feet around the showing. This work shows slight increases in gravity at scattered points. This could be due to small lenses of sulphides or to rock of higher specific gravity such as gabbro or iron formation. The presence of a large body of sulphides close to surface, comparable to the Brunswick orebodies, can be discounted in the area surveyed with the gravimeter.

RECOMMENDATIONS

Additional work plans await the results of the geochemical survey done late in 1966.

Respectfully submitted, Signed: J.H. Morgan, Ph. D., Consulting Geologist

Montreal 3, Que. January 17, 1967

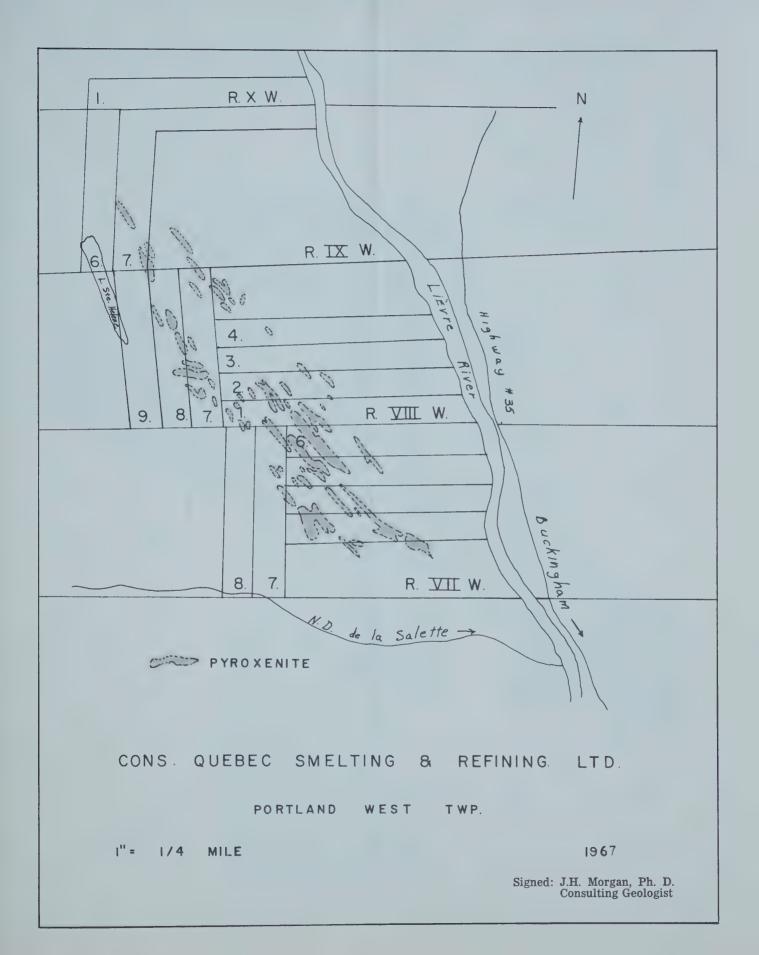
CERTIFICATE

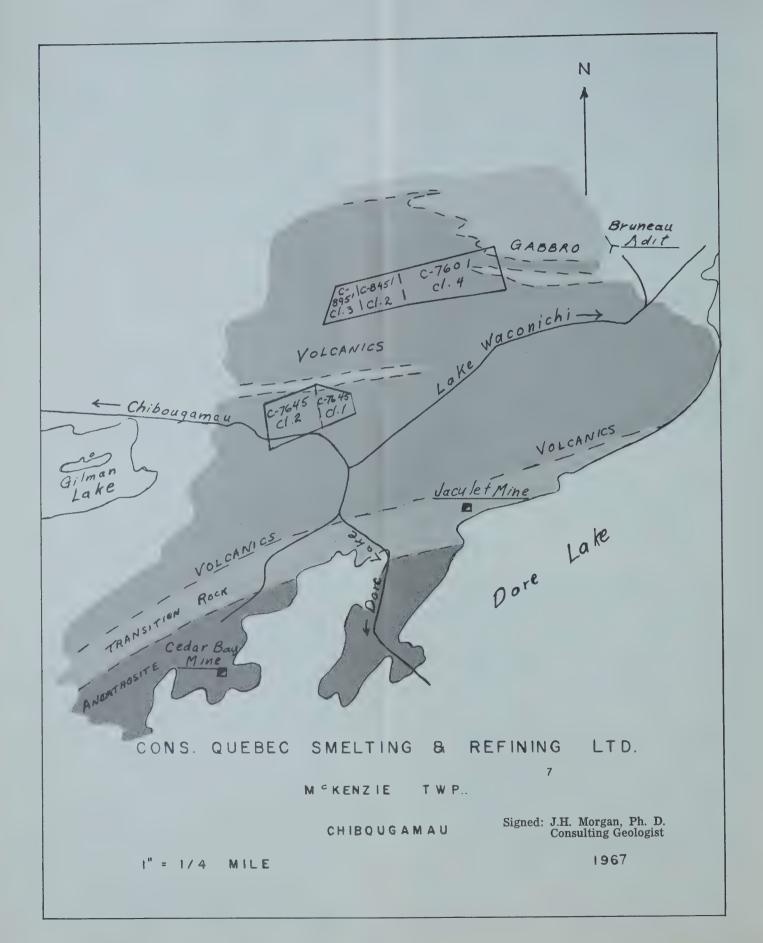
I, John Harold Morgan, of the City of Montreal, in the Province of Quebec, hereby certify:

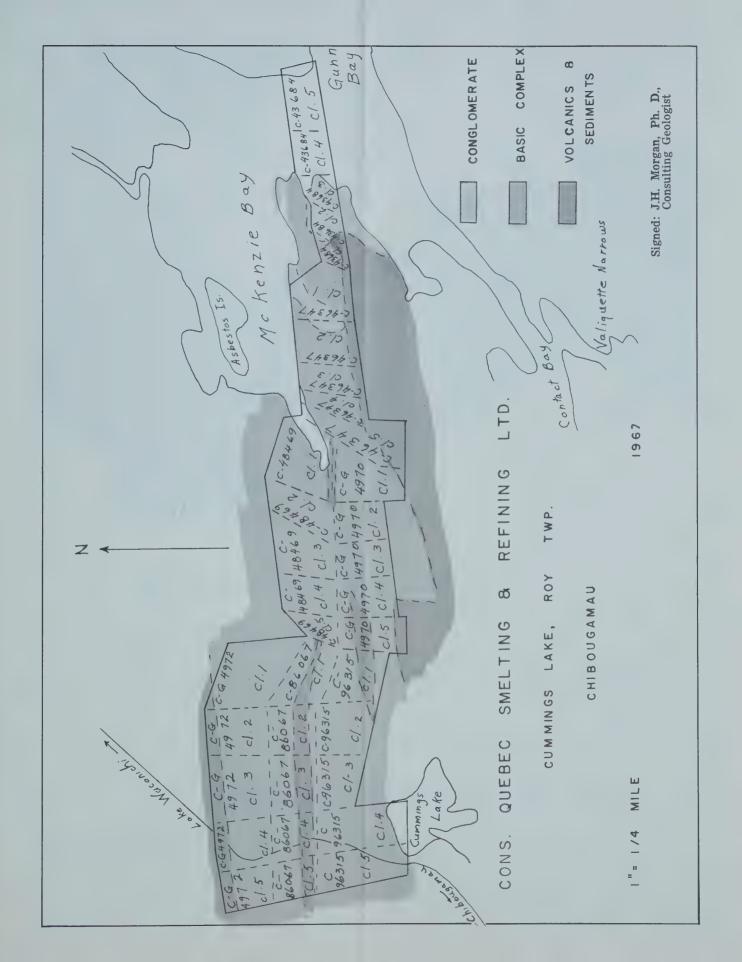
- 1. THAT I am a Geologist and reside at 4691 Bessborough Avenue, Montreal 28, Quebec, and have been practising my profession as a Geologist for Twenty six years;
- 2. THAT I am a graduate of the University of Manitoba (B.Sc.) and the University of Wisconsin (M.S. and Ph.D.);
- 3. THAT I own, by purchase, 10,600 shares of Cons. Quebec Smelting & Refining Ltd.; I expect to participate in stock options to be made available to officers of Cons. Quebec Smelting & Refining Ltd.;
- 4. THAT the accompanying report is based on observations, douments and maps, and general knowledge of the areas in which the properties are situated;
- 5. THAT I have examined the properties of Cons. Quebec Smelting & Refining Ltd. on many occasions between 1947 and the present.

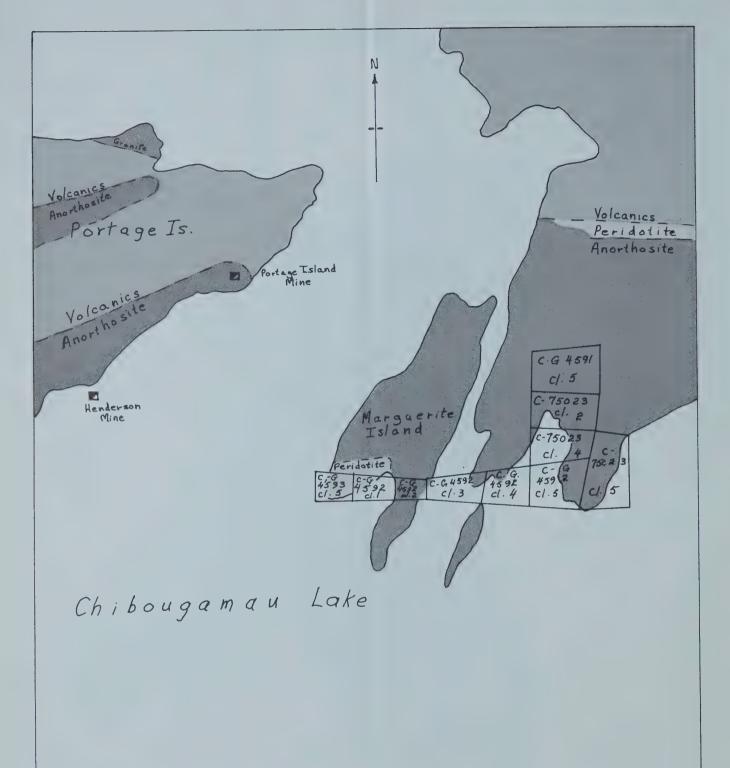
Signed: J.H. Morgan, Ph. D. Consulting Geologist

Montreal 3, Quebec January 17, 1967







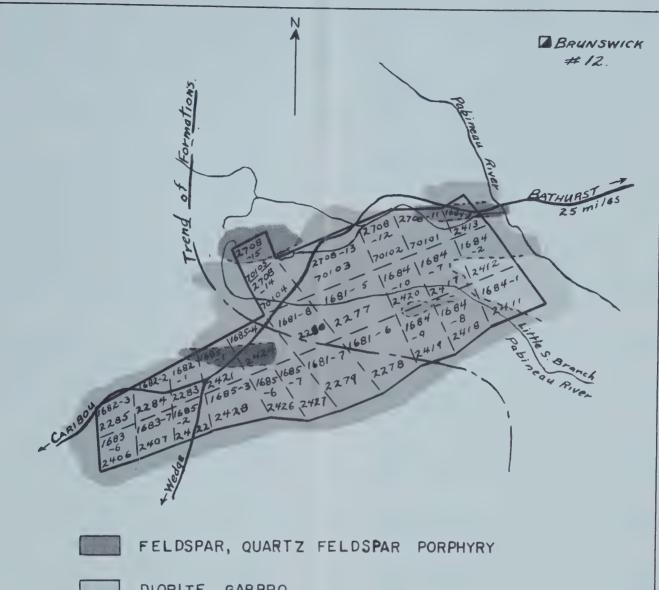


MARGUERITE ISLAND, ROY TWP. Signed: J.H. Morgan, Ph. D., Consulting Geologist

1" = 1/4 MILE

CHIBOUGAMAU

1967



DIORITE, GABBRO

SEDIMENTS, VOLCANICS

CONS. QUEBEC SMELTING & REFINING LTD.

PABINEAU RIVER AREA, NEW BRUNSWICK

Signed: J.H. Morgan, Ph. D., Consulting Geologist 1" = 1/4 MILE 1967

RESEARCH AND DEVELOPMENT

INTRODUCTION

In 1960 Quebec Smelting & Refining Limited acquired the rights to the Jones Wet Magnetic Separator, and to all improvements produced by Jones, in the Americas. A program of research and development was carried out to develop the Separator and various processes of mineral separation using the Separator. The Separator has been re-designed to a simpler form, continuous in operation, called the Rotary Jones Separator. Stearns-Roger Corporation of Denver, Colorado, has been licensed to manufacture and sell Jones Separators in the Americas. Ferro-Magnetics Ltd. has been formed to perform test work leading to use of the Separators; this company is a wholly-owned subsidiary of Cons. Quebec Smelting & Refining Ltd.

More than 30 Jones Separators are now used in a number of commercial applications, pilot plants and mineral testing laboratories throughout the world. Cons. Quebec Smelting & Refining Ltd. is involved in two production developments, ferrites and iron powder, in which natural iron oxide (hematite), after purification by the Jones Separator, is the major raw material.

THE JONES WET MAGNETIC SEPARATOR — FERRO-MAGNETICS LTD.

Many minerals possess magnetic properties. The degree of magnetic susceptibility varies from that of magnetite, which responds to a very weak magnetic field, to that of minerals such as chlorite, that will respond only to very powerful magnetic forces. The Jones Wet Magnetic Separator is the first machine developed to the commercial stage to make use of the magnetic properties of minerals, even those that are feebly magnetic, to effect separation in a liquid medium from other minerals with different magnetic properties. A wide range of particle sizes can be treated without differential sizing, ranging from 20 mesh to sub-micron sizes as in clays.

In Tasmania a small Jones Separator has been in use for three years removing garnet from a scheelite (tungsten) concentrate. Jones Separators of four tons per hour capacity have been in use in England for two years removing iron bearing minerals from china stone and kaolin. In Colorado a Jones Separator (of 30 tons per hour nominal capacity) has been installed to recover oxidized molybdenum and tungsten minerals. In Georgia a Rotary Separator is employed in a pilot plant to clean up kaolin clays. In Prescott, Ontario, Ferrox Iron Ltd. is using a one ton per hour Rotary Separator to purify a hematite concentrate. Thirteen laboratory/pilot plant machines have been sold in the Americas.

Test programs have been carried out on many minerals and ores. Stearns-Roger Corporation of Denver, Colorado, is actively promoting sales of Separators and is licensed to manufacture and sell them in the Americas, paying royalties to Cons. Quebec Smelting & Refining Ltd.

Many iron ores are readily concentrated with the Jones Separator. Good results have been obtained on semi-taconites, refractory ores containing both hematite and magnetite. These two minerals can be recovered in one operation with the Jones Separator, while other methods, such as low intensity magnetic separation of magnetite followed by flotation of hematite are more complex and expensive. One of the large iron mining companies in the USA is installing a Rotary Jones Separator in a pilot plant.

An extensive test program on bauxite and aluminous clays for an American aluminum producer is near completion. In this case it is necessary to reduce the iron content of the ore below one percent. This has been done by extracting iron minerals with the Jones Separator.

Iron and aluminum ore treatment constitute very large potential markets for Jones Separators. Good test results have been obtained on many other minerals including nepheline syenite, talc, wollastonite, barite, apatite, glass sand, etc.

The Jones Separator project has been self supporting for more than one year, with income from sales of Separators and fees for test programs.

FERRITES — FERROX IRON LTD.

Ferrites are combined metallic oxides with inherent magnetic properties. Those with permanent magnetic properties are "hard" ferrites, those with transient magnetic properties are "soft". Hard ferrites are used by industry in much greater volume than soft ferrites. They are used in loud speaker magnets, television sets, DC electric motors and generators, various electronic applications and as magnetic holding devices. A common use is embedding ferrites in a powdered form in rubber or plastic to form a holding seal around refrigerator doors and other household appliances. Soft ferrites have many electronic applications, such as "memory" components in computers. The market for ferrites is expanding at a rapid rate.

Ferrox Iron Ltd. was formed to develop methods of manufacture of ferrites, using natural iron oxides purified by the Jones Separator. It had been determined that the silica content of Quebec Cartier iron ore concentrates could be reduced below 0.1 percent leaving a superconcentrate more pure than chemically precipitated iron oxides. High purity iron oxide is a raw material for the manufacture of ferrites, iron powder and other products.

Ferrox Iron Ltd. obtained grants from Defence Research Board and Defence Production Board totalling \$299,500. for a three year period that ended June 30, 1966. The Defence Research Board grant has been extended with an additional sum of \$331,000. from July 1, 1966 for a further 2¾ years. This is for development of other forms of ferrites such as some of the soft ferrites.

Plant installation at Prescott, Ontario includes laboratory and test equipment for ferrites. Twenty tons per day of iron oxide concentrates can be processed by grinding and Jones Separation. Hard ferrite (barium ferrite) calcine is produced in a coarse grind at a rate of two tons per day. This is sold to customers that prefer to do their own fine grinding. Finely ground ferrite production is limited to 1000 pounds per day by the capacity of the fine grinding and drying equipment. Additional fine grinding equipment is being installed and a large spray dryer is on order. When this installation is complete production of fine hard ferrite at Prescott will be two tons per day. Sales are up to present capacity with the dryer operating seven days per week.

A press has been ordered with which magnet shapes will be made from the fine ferrite powders by pressing and sintering.

Plans are well advanced for construction of a larger production plant for hard ferrite and magnets. A suitable empty building is available in Ogdensburg, New York, across the St. Lawrence river from Prescott. Loans from various U.S. Government and Financial agencies totalling \$810,000. have been applied for to cover purchase and installation of the necessary equipment. These loan applications were made as requested by the New York State Department of Commerce. The Department of Commerce advises that final approval of the loans is imminent. It is estimated that Cons. Quebec Smelting & Refining Ltd. will need to supply \$300,000. working capital for this operation. A New York subsidiary of Cons. Quebec Smelting & Refining Ltd., Ferrox Iron (New York) Ltd., has been formed.

Manufacture of hard ferrite and magnets promises to be profitable when conducted on a commercial scale. Present production costs at Prescott are \$125. per ton for the coarse calcine, which sells for \$220. per ton. Finely ground grades of hard ferrite sell for \$450. per ton; costs of production, even at the present limited experimental scale, are \$195. per ton. These costs do not include overhead, depreciation or taxes.

Ferrite magnets sell at various prices, depending on size and shape, but lowest prices indicated are \$3,500. per ton.

Estimates have been made for the Ogdensburg plant, based on a production capacity of 12 tons per day of powdered hard ferrite calcine, of which five tons per day would be converted to magnet blocks and seven tons per day sold as powdered calcine. A potential profit of \$600,000. is indicated for the first year, before taxes, based on selling 80 percent of the powder capacity and 20 percent of the block capacity. It is estimated that in the third year 100 percent of the powder capacity (seven tons per day) and 60 percent of the magnet block capacity of five tons per day would produce a profit in excess of \$2,000,000. per year, before taxes.

IRON POWDER PROJECT

It is apparent that an iron powder of high purity can be made by reduction of pure iron oxide with hydrogen or carbon monoxide. Such a pure iron oxide became available when it was found that a hematite superconcentrate of high purity could be made from Quebec Cartier concentrates by processing with the Jones Separator. Test work has been done to prove the potential of this process.

A second prerequisite is a source of reductant. Three common materials can be used, coal or coke, hydrogen, or carbon monoxide. Coal or coke is not considered as its impurities would be added to the iron powder. Oil refineries or fertilizer plants produce hydrogen, sometimes in excess amounts. Canadian Petrofina became interested in the production possibilities of iron powder. They have a surplus of hydrogen at present and expect to introduce a hydrogen cracking process from which a stream of hydrogen could be obtained. An agreement was reached to develop the iron powder process and design a plant to produce iron powder at or near the Petrofina refinery in Montreal East. Petrofina is spending \$75,000. on the development work to earn a 51 percent interest in the project and Cons. Quebec Smelting & Refining Ltd. will retain 49 percent. Financing to production will be carried in these proportions.

Iron powder has many uses, but the most profitable is in pressed and sintered parts of intricate shapes. Such parts can be pressed from dies in large numbers and with very close tolerances at costs much less than standard machining methods. Iron powder can be mixed with other metal powders to produce alloys on sintering. Some of these special alloys cannot be machined, forged, or rolled, and a powder metallurgy approach is the most practical way to produce parts from them. Various grades of iron powder are used in welding rod, for cutting and scarfing steel and as an additive in food products. It has a potential use in rolling steel strip, sheet and wire

directly from the powder if costs can be reduced to be competitive with standard methods of steel making. It is probably competitive in price now for use in some of the difficult specialty steels that sell for as much as \$1.50 per pound.

Parts made with iron powder are being used in ever increasing quantities in automobiles, domestic appliances, typewriters; that is, any industry requiring large numbers of parts. About 100 parts are made from iron powder in today's automobile, weighing eight pounds per car. Larger parts are now being pressed and one automobile manufacturer is incorporating a gear made from powdered iron weighing eight pounds. The use of iron powder in the automobile industry is rapidly increasing and its potential use is very great.

Iron powder being used in North America at present is made from mill scale, Swedish magnetite ore or "atomized" molten iron. These raw materials are not as pure as the superconcentrates made in the Quebec Smelting process and it is often necessary to beneficiate the iron powder after reduction to remove impurities inherent in the raw material.

About 100,000 tons of iron powder was used in the USA in 1965. Each of the major European manufacturing countries uses about 15,000 tons per year. Predicted consumption in North America will be 250,000 tons per year by 1970. Mill scale of suitable quality for iron powder manufacture in North America is in short supply and it will be necessary to use natural raw materials to supply the demand.

Since the agreement was signed with Petrofina in January of 1966 test work on the powder has been largely completed. A pilot plant to produce a few tons of powder for large scale tests in manufacturing of parts is being built at Prescott, and production plant design is underway. Cons. Quebec Smelting & Refining Ltd. will require approximately \$1,500,000 over the next two years to maintain its 49 percent interest in the project.

Test work on iron powder made from superconcentrates was done by S-K-C Associates of Hawthorne, New Jersey, Consultants in Powder Metallurgy. These show that the powder is as good as, and, in some characteristics, better than, pressing grade powders now in use.

The rated capacity of the plant to be built in Montreal East will be 50 tons of iron powder per day, or 15,000 tons per year. Pressing grade powders sell at \$230 per ton or more at present. Production costs, before depreciation and taxes, are estimated at \$135 per ton at half capacity and \$95 per ton at full capacity.

Respectfully submitted,
CONS. QUEBEC SMELTING & REFINING LTD.
Signed: J.H. Morgan, Ph. D.,
Vice-President & General Manager

Montreal 3, P.Q. July 26, 1966

(NO PERSONAL LIABILITY) AND SUBSIDIARY COMPANIES

CONSOLIDATED BALANCE SHEET — DECEMBER 31 ASSETS	I, 1966	Statement I
CURRENT ASSETS:	e 24.222.5/	
Cash on hand and in bank	\$ 34,223.56 71,695.07	
Investments in shares of listed mining companies (Note 2 and Schedule A—quoted market value—\$21,168.00)	31,626.73	
Inventory—raw material, at cost	7,352.87	\$ 144,898.23
INVESTMENTS IN SHARES OF UNLISTED MINING COMPANIES (Note 2 and Schedule B)		44,440.00
INVESTMENT IN AND ADVANCES TO EEDDOY IDON (NEW YORK) ITD	24,722.29	.,,.,
INVESTMENT IN AND ADVANCES TO FINA METAL LTD.		
A SUBSIDIARY COMPANY (Note 1) INVESTMENT IN AND ADVANCES TO FINA METAL LTD. AN ASSOCIATED COMPANY (Note 3) ADVANCES TO RELATED COMPANIES	59,256.11 15,300.00	99,278.40
MORTGAGE RECEIVABLE, less instalments due within one year		22,014.46
MINING LICENCES (Notes 2 and 4 and Schedule C)	36,024.04	
OPTION ON MINING RIGHTS, at cost, Portland West Township phosphate properties (Notes 4 and 5)	46,591.87	82,615.91
FIXED ASSETS, at cost:	3,308.30	
Land Building	56,462.24	
Machinery and equipment Furniture and fixtures	212,160.67 499.71	
	272,430.92	
Less: Received by grant on building, machinery and equipment (Note 7)	133,295.59 139,135,33	
Less: Accumulated depreciation (Note 8)	10,450.48	128,684.85
INVESTMENT IN JONES WET MAGNETIC SEPARATORDEFERRED EXPENDITURES:		6,222.07
Development (Statement II)	753,451.00 192,061.80	
	945,512.80	/n= non =/
Less: Received by grant (Note 7)	250,224.24	695,288.56 8,542.97
OKOANIZATION DAI ENGLO		\$1,231,985.45
LIABILITIES AND CAPITAL		
CURRENT LIABILITIES: Accounts payable and accrued liabilities	\$ 63,078.15	
Income taxes payable	3,200.00	\$ 66,278.15
7% Mortgage payable, less \$4,500 payable within one year		32,625.00
Authorized	\$ 500,000.00	
IssuedCAPITAL:		150,000.00
Capital stock (Note 9)— Authorized—		
2,500,000 shares of \$5 par value	\$12,500,000.00	
Issued and fully paid—	7.7	
For cash	<u>Net</u> \$ 1.322,257.45	
For net assets of predecessor corporation	750,000.00	
Deduct: Cost of mining claims and options abandoned, write-offs and net losses (profits) on	2,072,257.45	
disposal of investments and other assets (Statement V)'		
Less: Surplus of Ferro-Magnetics Ltd. (No Personal Liability), a subsidiary company (Statement VI)	1.089.175.15	983,082.30
SIGNED ON BEHALF OF THE BOARD: R. P. MILLS, Director		
J. O. SABOURIN, Director		
		\$1,231,985.45

AUDITORS' REPORT

To the Shareholders of CONS. QUEBEC SMELTING & REFINING LTD. (No Personal Liability):

We have examined the consolidated balance sheet of Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) and its consolidated subsidiary companies as at December 31, 1966, and the related statements (Statements II to VI inclusive) for the year then ended, and have obtained all the information and explanations we have required. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion and according to the best of our information and the explanations given to us and as shown by the books of the companies, these financial statements are properly drawn up so as to exhibit a true and correct view of the combined state of affairs of the companies as at December 31, 1966 and of their operations for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year except that this year the accounts of Cons. Quebec Smelting & Refining Ltd. (No Personal Liability) and certain of its subsidiary companies have been consolidated for the first time.

PRICE WATERHOUSE & CO.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS DECEMBER 31, 1966 Note 1: (a)

The consolidated financial statements include the accounts as at December 31, 1966 of the following subsidiary companies:

Ferrox Iron Ltd. (No Personal Liability)—incorporated under the Quebec Mining Companies Act on January 29, 1964.

Ferro-Magnetics Ltd. (No Personal Liability)—incorporated under the Quebec Mining Companies Act on December 22, 1964.

The accounts as at December 31, 1966 of Ferrox Iron (New York) Ltd., a wholly owned subsidiary incorporated under the laws of the State of New York on October 15, 1965, are not consolidated because the company has not commenced operations and no audited accounts are available at December 31, 1966. Investments in and advances to Ferrox Iron (New York) Ltd.

Capital stock—500 shares at cost

Advances

\$ 540.50

24,181.79

\$24,722.29

The company is negotiating with U.S. interests to provide loans to Ferrox Iron (New York) Ltd. aggregating approximately \$810,000 at annual rates of interest varying from 2½% to 6%.

(NO PERSONAL LIABILITY) AND SUBSIDIARY COMPANIES

Notes to Consolidated Financial Statements December 31, 1966 (Continued)

The investments in shares of mining companies and mining rights are valued at cost, except in the case of unlisted mining shares and shares and mining rights acquired from Quebec Smelting and Refining Corporation in 1948 and where shares were received in consideration of sales of mining rights, which are at valuations determined by Directors of the company.

The investment in and advances to Fina Metal Ltd., an associated company, comprise: Capital stock (49% interest)—20% paid-up \$28,272.66 Advances \$30,983.45 \$59.256:11

Fina Metal Ltd. was incorporated under the laws of Canada on October 17, 1966 to undertake the construction and operation of a plant for the manufacture of iron powder.

The amount at which the mining claims and rights are recorded does not, and does not purport to, represent their present or future value.

Note 5: The mining rights under option may be acquired by the issue to the vendors of 75,000 shares of a company having an authorized capital of 3,000,000 shares, if such is formed to acquire and develop them.

Note 6:

Of \$500,000 7% Convertible Redeemable debentures was increased to an aggregate principal amount of \$1,000,000.

The debentures are redeemable at any time after February 1, 1968, and mature on February 1, 1972. They constitute a first floating charge to and in favour of the Trustee on the undertaking of the company, its property and assets. The debentures are convertible at the option of the holder into fully paid and non-assessable common shares of the company at the following rates for each \$100 principal amount:

1. On or before February 1, 1969

2. February 2, 1969 to February 1, 1970

3. February 2, 1970 to February 1, 1971

4. February 2, 1970 to February 31, 1972

40 Common shares

During the year 1966 \$150,000 of debentures were issued for \$150,000 cash. The company proposes to offer for sale a further \$550,000 of debentures subject to qualification of the company under the applicable statutes.

Note 7: The company has been awarded Government of Canada research and production grants of \$581,100.00 for the period ending May 1969. Funds provided to December 31, 1966 total \$383,519.83 whereof \$133,295.59 is for building, machinery and equipment and \$250,224.24 for development and administrative expenditures.

No depreciation has been recorded on the fixed assets of Ferrox Iron Ltd. (No Personal Liability), a wholly-owned subsidiary, because the company did not commence commercial operations until January 1967.

Note 9:

By resolution of the Board of Directors dated May 5, 1966, options were granted to officers and senior personnel of the company to purchase 100,000 un-issued shares of capital stock at \$1 per share. Subject to qualification of the company under the applicable statutes, the options are exercisable at any time until December 31, 1971, on the condition that not more than 20% will be taken up in any one year.

DEVELOPMENT EXPENDITURES FROM DATE OF INCORPORATION (NOVEMBER 26, 1947) TO DECEMBER 31, 1966	Balance at	Expenditures for the year ended	Costs applicable to	Statement II Balance at
BY AREAS	December 31, 1965	December 31, 1966	mining claims abandoned	December 31, 1966
CURRENT GROUPS: McKenzie and Roy Townships New Brunswick New Quebec—Township 1931 Participation in prospecting ventures Phosphate properties Portland West Township Urban Township	\$ 90,249.50 179,312.19 1,266.75 4,268.90 121,542.27 4.591.75	6,773.59 2,997,41 1,768.90 (1,768.90) 147.18	3,035.65 — 4,591.75	97,023.09 182,309.60 2,500.00 121,689.45
Miscellaneous—prospecting Depreciation of building and equipment—unallocated	3,955.09 405,186.45 4,329.00	9,960.66 113.16	(7,627.40)	3,997.57 407,519.71 4,442.16
Pre-production and research expenditures— Ferrox Iron Ltd. (No Personal Liability),	409,515.45	10,073.82	(7,627.40)	411,961.87
a subsidiary company (Statement III) Per balance sheet—Statement I	247,605.23 \$657,120.68	93,883.90 103,957.72	(7,627.40)	341,489.13 753,451.00

BY DEVELOPMENT EXPENDITURE ACCOUNTS	Balance at December 31, 1965	Expenditures for the year ended December 31, 1966	Balance at December 31, 1966
Assays	\$ 9,549.09		9,549.09
Commissary	34,377.99	129.17 113.16	34,507.16
Depreciation of building and equipment	42,979.75 296.360.64	113.10	43,092.91 206,360,64
Diamond drilling	14.912.93	4,200,00	19 112 93
Engineering Equipment and maintenance	11.193.97		11,193,97
Geological and engineering salaries	5,639.73	Maria	5,639.73
Geophysical and land surveys	54,805.37	432.00	55,237.37
Insurance	9,154.35	421.06	9,575.41
Miscellaneous	4,268.90	403.00	11,001.17
Participation in prospecting ventures	10 011 35		10 011 35
Prospecting Salaries and wages	166.365.69	450.00	166.815.69
Supplies	28,813.26	178.43	28,991.69
Taxes, fees and licences	48,677.99	2,187.06	50,865.05
Transportation	36,018.05	1,250.66	37,268.71
Unemployment insurance	1,710.36 11.613.21	205 20	1,/14.44
Workmen's compensation insurance	22,020,00	10.072.02	207 724 (2
The state of the s	797,650.80 (388,135,35)	(7,627,40)	(395.762.75)
Development expenditures on mining claims and options abandoned	(000)	(7,027.40)	(
The Late (No Descond Lightlity)	409,515.45	2,446.42	411,961.87
Pre-production and research expenditures—Ferrox Iron Ltd. (No Personal Liability)	247.605.23	93.883.90	341.489.13
(Statement III)	\$657,120.68	06 320 22	753,451.00
Per balance sheet—Statement I	\$037,120.08	90,330.32	755,451.00

(NO PERSONAL LIABILITY) AND SUBSIDIARY COMPANIES

PRE-PRODUCTION AND RESEARCH EXPENDITURES OF FERROX IRON LTD.

Statement III

(NO PERSONAL LIABILITY)
A SUBSIDIARY COMPANY
FROM DATE OF INCORPORATION (JANUARY 29, 1964) TO DECEMBER 31, 1966

FROM DATE OF INCORPORATION (JANUARY 29, 1964)	10 DECEMBER 3		
	Balance at December 31, 1965	Expenditures for the year ended December 31, 1966	Balance at December 31, 1966
Pre-production: Incurred by prior interests Miscellaneous Rent Rental of equipment Salaries Supplies Technical publications Testing and consulting fees Transportation Travelling Research:	5,134.44 1,494.00 574.71 31,825.84 3,095.76 1,724.82 2,934.62 215.28	1,085.98 1,140.00 542.49 23,360.22 3,552.75 473.23 71.50 29.05 1,756.33 32,011.55	47,318.91 6,220.42 2,634.00 1,117.20 55,186.06 6,648.51 2,198.05 3,006.12 244.33 16,124.13
Insurance Light, heat and power Materials and supplies Miscellaneous Rental of equipment Salaries and wages Taxes, fees and licences Testing and consultation Travelling Transportation Workmen's compensation insurance	6,388.78 41,723.66 1,794.59 1,180.62 99,428.92 3,493.94 3,796.57 3,425.19	542.91 9.216.61 35,370.43 2,840.21 2,810.56 113,652.19 3,529.48 3,732.23 3,628.72 7,386.53 2,273.25 184,983.12 216,994.67	2,566.47 15,605.39 77,094.09 4,634.80 3,991.18 213,081.11 7,023.42 3,732.23 7,425.29 10,811.72 4,229.56 350,195.26 490,892.99
Less: Excess of net assets of the subsidiary over cost of acquisition Revenue from sales of super concentrates and ferrites	26,293.09	10,010.00 14,845.02	10,010.00 41,138.11
Expenditure applied to and recovered or recoverable from Joint Venture—Iron Powder Project Estimated expenditures incurred on behalf of and	–	88,255.75	88,255.75
recoverable from related company Per Statement II	26,293.09	10,000.00 123,110.77 93,883.90	10,000.00 149,403.86 341,489.13
ADMINISTRATIVE EXPENDITURES FROM DATES OF INCORPORATION TO DEC	EMBER 31, 1966	Expenditures	Statement IV
	Balance at December 31, 1965	for the year ended December 31, 1966	Balance at December 31, 1966
Advertising Consulting fees Cost of share certificates Depreciation of office furniture Hospital and pension plans Interest Legal and audit fees Listing and stock exchange fees Management services—geological, engineering and administrative Miscellaneous and office expenses Office rent Office salaries Printing and maps Printing and maps Prublicity and shareholders' information Securities registration fees and expenses Stationery, postage and office supplies Taxes, fees and licences Telephone and telegrams Transfer agent's fees Travelling Workmen's compensation insurance Interest and dividends received	\$ 4,236.69 227.00 3,852.95 7,488.16 975.17 3,282.06 17,483.98 3,688.35 84,000.00 12,975.34 9,906.21 51,919.19 11,034.76 10,848.13 3,275.34 7,094.00 4,168.81 6,259.73 31,235.22 4,317.38 1,773.97 (6,057.90) 273,984.54	452.38 	4,689.07 227.00 3,852.95 7,488.16 5,076.81 12,797.11 25,748.61 4,081.62 99,100.00 14,889.41 9,906.21 51,919.19 11,069.50 16,917.73 3,635.34 9,071.94 4,741.24 6,574.99 33,777.92 4,758.85 1,773.97 (7,941.96) 324,155.66
Cost applicable to mining claims abandoned Excess of revenue over expenditure from Jones Wet Magnetic Separator operations		3,471.85	93,525.11
Per balance sheet—Statement I	112.048.66	16,573.35 20,045.20 30,125.92	38,568.75 132,093.86 192,061.80
STATEMENT OF COST OF MINING CLAIMS AND OPTIONS ABANDONED, WRITE-OFFS AND NET LOSSES (PROFITS) ON DISPOSALS OF INVESTMENTS AND OTHER ASSETS DECEMBER 31, 1966 Net loss (profit) on disposal of investments in shares of mining companies Write-down of investments Profit on disposals of fixed assets	22 022 00	For the year ended December 31, 1966 (19,364.81) 67,578.46	Statement V From incorporation to December 31, 1965 259,707.69 90,511.54 (16,031.04)
Cost of mining claims and options abandoned— Mining claims Development expenditures Administrative expenditures	. 253,888.08	22,395.29 7,627.40	276,283.37 395,762.75
Per balance sheet—Statement I	\$1,018,051.23	3,471.85 81,708.19	93,525.11 1,099,759,42

(NO PERSONAL LIABILITY) AND SUBSIDIARY COMPANIES

Statement VI

STATEMENT OF INCOME AND EARNED SURPLUS OF FERRO-MAGNETICS LTD.

(NO PERSONAL LIABILITY)
A SUBSIDIARY COMPANY
FOR THE YEAR ENDED DECEMBER 31, 1966

\$ 6,967.39 4,496.80 Cost of sales 2,470.59 35,232.12 Net revenue from custom and analysis work..... 37,702.71 Accounting fees
Advertising
Brochure and printing \$6,000.00 58.48 425.16 Brochure and printing
Commission
Insurance
Legal and audit fees
Miscellaneous office expenses
Office salaries
Taxes, fees and licences
Travelling expenses 7,415.60 108.95 273.38 21.98 21,197.01 16,505.70 3,200.00 Estimated income taxes ... Net income for the year
Deficit, December 31, 1965 13,305.70 2,721.43 Earned surplus, December 31, 1966—Statement I \$10,584.27 CONSOLIDATED STATEMENT OF SOURCE AND APPLICATION OF FUNDS FOR THE YEAR ENDED DECEMBER 31, 1966 Source: Irce:
Issue of 7% convertible redeemable debentures
Government of Canada research and production grants
Net income from Ferro Magnetics Ltd. (N.P.L.)
Net revenue from Jones Wet Magnetic Separator operations
Net revenue from sale of super concentrates and ferrites
Profit on sale of securities
Recovered from Iron Powder Project joint venture
Depreciation \$150,000.00 159,272.79 13,305.70 16,573.35 14,845.02 19,364.81 88,255.75 797.16 \$462,414,58 Depreciation Application: Deferred expenditures—
Development and preproduction
Administrative 58,338.24 267 239 61 Investment in capital stock and advances to Fina Metal Ltd., an associated company
Investment in capital stock and advances to Ferrox Iron (New York) Ltd., a subsidiary company
Purchase of capital stock in subsidiary companies
Repayment of mortgage capital 59,256.11 24,722.29 2,510.00 416.061.22 Increase in working capital \$ 46,353.36 Working capital at December 31, 1965 Working capital at December 31, 1966 \$ 47,566.72 93.920.08 (1) Increase in working capital (as above) \$ 46.353.36 (1) Includes advances to related companies \$15,300 INVESTMENTS IN SHARES OF LISTED MINING COMPANIES Schedule A Number Book value Market value of shares \$ 4,000.00 \$15,216.64 2,334.90 14,075.19 40,000 1,690.00 15,478.00 13,000 21,800 \$31.626.73 \$21,168.00 Per balance sheet-Statement I..... INVESTMENTS IN SHARES OF UNLISTED MINING COMPANIES Schedule B Book value Chiboug Copper Corporation (pooled)
Cuvier Mines
Gibson Mines
Gibson Mines (pooled)
Grand Manitou Mines (pooled)
Lucky Lake Mines
Lucky Lake Mines (pooled)
Packard Pershing Mines (pooled)
Ran-Lux Mines (pooled)
Scott Chibougamau Mines
Per balance sheet—Statement I \$10,800.00 2,500.00 129,200 562 24,188 75,000 357,029 { 1,250.00 17,850.00 5,000.00 2,000.00 5,000.00 40.00 256,669 200,000 100,000 4,000 \$44,440,00 Per balance sheet-Statement I..... MINING CLAIMS UNDER DEVELOPMENT LICENCES OR MINING LICENCES DECEMBER 31, 1966 Schedule C Number of mining Cost claims Area \$34,970.00 1.054.04 Chibougamau, P.Q. Gloucester County, N.B.—Mining licence No. 923 (1,224 acres) 50 36.024.04 Per balance sheet-Statement I.....

(NO PERSONAL LIABILITY)

Suite 400 - 621 Craig Street West, Montreal 3, P.Q.

AR45

Officers:

PRESIDENT:

R.P. Mills

VICE-PRES. & GEN. MGR.

J.H. Morgan, Ph. D.

SECRETARY-TREASURER:

J.O. Sabourin, F.C.I.S.

DEVELOPMENT MANAGER:

W.J.D. Stone, P. Eng.

Directors:

John McG. Home, Q.C. - Montreal, Que.

R.P. Mills - Montreal, Que.

J.H. Morgan, Ph. D. - Montreal, Que.

J.O. Sabourin, F.C.I.S. - Pointe Claire, Que.

J. Douglas Streit - Toronto, Ont.

Transfer Agents and Registrars

Eastern & Chartered Trust Company, 625 Dorchester Blvd. W., Montreal 2, P.Q.

1901 Yonge St., Toronto 1, Ontario

The company hereby offers to its Shareholders (except those resident in the United States of America or its Territories or Possessions) the right to subscribe for \$400,000.00 of the 7% Convertible Debentures at par. You as a Shareholder of the company have a right to subscribe for your portion of such Debentures, if a registered Shareholder at the close of business on May 20, 1967. You may subscribe for any number of Debentures. Your excess subscription will only be reduced if the issue is oversubscribed and then in such manner as your Board of Directors may determine. The company will have the right to adjust the subscription to reduce the total Debentures subscribed for to \$400,000.00. The entire proceeds of your subscription will go directly into the Treasury of the company.

CONS. QUEBEC SMELTING & REFINING LTD. (NO PERSONAL LIABILITY) **PROSPECTUS** April 30th, 1967 CONS. QUEBEC SMELTING & REFINING LTD. (NO PERSONAL LIABILITY) FERROX **FERROX** IRON IRON (NEW YORK) LTD. LTD. (NO PERSONAL LIABILITY)

FERRO-

MAGNETICS

LTD.

(NO PERSONAL LIABILITY)

FINA

METAL